Nanova Environmental

# NovaTest P50

# Handheld VOC Gas Detector


**User Manual**

V2306

## Copyright

©2212 All Rights Reserved.

No part of this document may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without prior written permission of Nanova Environmental, Inc. Violation of the aforementioned agreement will result in legal action taken upon the violating party.

## Document number

PT3E2306

## Edition

Third Edition, June 2023

Nanova Environmental, Inc.

3334 Brown Station Rd, Columbia, MO 65202, United States.

## Disclaimers

The content of this document is believed to be accurate and reliable as of the date issued but is subject to change without notice in future editions. Nanova Environmental disclaims any warranties, expressed or implied, including but not limited to any implied warranty of merchantability or fitness for a particular purpose or course of performance or usage of trade. Nanova Environmental is not responsible or liable for any incidental or consequential damage with relation to the use of this product and this document.

## Warranty

COVERAGE: Nanova Environmental, Inc. ("Seller") warrants the products manufactured by it to be free from defects of materials or workmanship under normal proper use and service. The period of warranty coverage is specified in the Seller's printed price list but shall not be less than one (1) year from the date of installation/acceptance by Seller. During this warranty period, Seller will provide the following services at no additional charge:

- Maintainable parts.
- Parts, labor, and the cost of return shipping provided for return-to-factory repairs.

Seller's liability under this warranty is limited to such of the above products or parts thereof as are returned, transportation prepaid, to Seller's plant, not later than thirty (30) days after the expiration of the period of warranty coverage in respect thereof and are found by Seller's examinations to have failed to function properly because of defective workmanship or materials and not because of improper installation or misuse and is limited to, at Seller's election, either (a) repairing and returning the product or part thereof, or (b) furnishing a replacement product or part thereof, transportation prepaid by Seller in either case. In the event Buyer discovers or learns that a product does not conform to warranty, Buyer shall immediately notify Seller in writing of such nonconformity, specifying in reasonable detail the nature of such nonconformity. If Seller is not provided with such written notification, Seller shall not be liable for any further damages which could have been avoided if Seller had been provided with immediate written notification.

EXCLUSIONS: The following are not covered by the Seller's warranty:

- Consumables, such as lamps, filters; and
- Components manufactured by a third party, including, without limitation, components and accessories (such components shall be subject, if applicable, only to the warranty provided by the original manufacturer).

SERVICES: Seller warrants the services performed and the spare and replacement parts installed for a period of ninety (90) days from the date of completion of such services and the date of installation of such spare or replacement parts, respectively.

ADDITIONAL LIMITATIONS: This warranty excludes such equipment or accessories which are identified on applicable price lists, quotations, or special promotional materials for which the warranty may be further limited. This includes items which are sold at specially reduced prices with reduced warranty protection. (In some cases, an extended warranty may be available for purchase). Additionally, this warranty does not cover loss, damage, or defects resulting from the following conditions: transportation to the Buyer's facility, improper or inadequate maintenance by the Buyer, Buyer-supplied software or interfacing, unauthorized modification or misuse, operation outside of the environmental specifications for the instruments, and/or improper site preparations or maintenance. This warranty applies only to instruments within the original country of delivery. Instruments transferred outside the original country of delivery, whether by the Seller or at the direction of the Buyer or though the Buyer's actions subsequent to delivery, may be subject to additional charges prior to warranty repair or replacement. Additional charges will be based on the actual location of such instruments and the Seller's warranty and/or service surcharges for such location(s). Except in the case of an authorized distributor, authorized in writing by Seller to extend the warranty to distributor's customers, this warranty applies only to the Buyer as the original purchases from Seller and may not be assigned, sold, or otherwise transferred to any third party.

THIS WARRANTY IS MADE AND ACCEPTED IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, WHETHER OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, AS A BUYER'S EXCLUSIVE REMEDY FOR ANY DEFECTS IN THE PRODUCTS TO BE SOLD HEREUNDER. All other obligations and liabilities of Seller, whether in contract or tort (including negligence) or otherwise, are expressly EXCLUDED. In no event shall Seller be liable for any costs, expenses, or damages, whether direct or indirect, special, incidental, consequential, or other, on any claim of any defective product, in excess of the price paid by Buyer for the product plus return transportation charges prepaid.

# Contents

# 1. Safety Guidelines and Precautions

*Please be sure to read the following information carefully before using the NovaTest P50.*

## 1.1 Operational Safety

This manual must be carefully read by all individuals who have or will have the responsibility of using, maintaining, or servicing this product. The product will perform as designed only if it is used, maintained, and serviced in accordance with the manufacturer's instructions. The user should understand how to set the correct parameters and interpret the obtained results.

Improper operation or storage of the product or its parts may result in property damage, personal injury, or death.

Avoid exposing the NovaTest P50 to high temperatures; instead, store the instrument in a cool, dry place.

Refrain from moving or disassembling any parts of the instrument while testing.

Never attempt to disassemble the NovaTest P50.

Do not remove any warning labels affixed to the instrument.

Always keep the NovaTest P50 out of reach of children.

## 1.2 Power Supply

Keep the battery pack away from high temperatures and fire sources.

Charge the battery using the provided charger only.

Do not attempt to disassemble the battery pack yourself.

Avoid charging batteries in hazardous locations.

## 1.3 Photoionization Detector (PID)

Under normal circumstances, please do not disassemble the PID by yourself.

Do not expose PID to high temperatures.

## 1.4 Special Note

When the instrument is taken out of the transport case and turned on for the first time, there may be some residual organic or inorganic vapor trapped inside the detector chamber. The initial PID sensor reading may indicate a few ppm. Enter an area known to be free of any organic vapor and turn on the instrument. After running for several minutes, the residual vapor in the detector chamber will be cleared and the reading should return to zero.

## 2. Product Overview

The handheld NovaTest P50 is specifically designed for monitoring Volatile Organic Compounds (VOCs) in hazardous environments. It functions as a broadband VOC gas monitor and data logger. The device utilizes a photoionization detector (PID) equipped with a 10.6 eV gas discharge lamp.

Comprising a PID, microprocessor, and electronic circuit, the NovaTest P50 is housed in a durable case. It features a high-definition interface and five user-friendly keys, ensuring an intuitive and easy-to-use experience.

**Key Features:**

**Sleek and Portable Design**

- A compact, lightweight, and rugged design
- Built-in sampling pump

**Reliable and Precise Performance**

- Up to 12 hours continuous use.
- Designed to continuous monitoring VOCs at multiple measurement range (20/200/2000/5000/10000 ppm).

**Intuitive User Interface**

- Adjustable alarm thresholds.
- Equipped with an audio buzzer and flashing lights to signal when the limits are exceeded.

## 3. Product Characteristics

- The instrument is designed for efficient gas detection, featuring a specially designed gas route for rapid responses and a sampling distance of over 10 meters.
- With a 2.31-inch high-definition color screen, it provides real-time gas curve, historical curve, and concentration data display for easy monitoring.
- You can choose between real-time detection and timing detection modes, and during idle periods, the pump can be turned off to extend the battery life.
- The instrument is equipped with a standard USB charging port that includes a charging protection function, allowing you to operate it while charging without any issues.
- Powered by a high capacity 4600mA rechargeable polymer lithium battery, it offers over 12 hours of continuous usage.
- Thanks to its multi-point calibration feature, the instrument ensures enhanced linearity and accuracy in measurement results.
- The device operates effectively in a wide temperature range from -40 to 158 ℉, making it suitable for various environments.
- For added safety, multiple alarm modes are available, including sound-light, vibration, and visual alarms, ensuring timely alerts in case of any gas detection events.

# 4. Specifications

| | |
|---|---|
| Instrument Name | Handheld NovaTest P50 |
| Interface Language | English/Chinese |
| Detector Sensor | Photoionization (PID) 10.6eV |
| Gas Type | TVOC |
| Measurement Ranges | 20/200/2000/5000/10000ppm |
| Reading Error | ± 5% |
| Response Time | T90 ≤ 15 seconds |
| Recovery Time | ≤ 30 seconds |
| Linearity | ≥0.995 |
| Display | 2.31" High resolution color display |
| Keys/Buttons | 5 Keys |
| Alarm | Buzzer, light, and vibration |
| Operational Temp. | -40 ~ 158 ℉ |
| Relative Humidity | 0 ~ 95% (non-condensing) |
| Concentration units | ppb, ppm, mg/m3 |
| Sampling method | Built-in pump |
| Pump flow rate | 500 mL/min |
| Dust filter | External filter |
| Battery | 4600mA polymer lithium battery |
| Dimension | 160 x 70 x 28 mm (L x W x H) |
| Weight | 300 g |
| Protection Level | IP 65 |
| Standard accessories | User Mannual, Qualification certificate, Warranty card, USB charger (including data cable), high-grade aluminum instrument case, clip, humidity/dust filter |

# 5. Outline Drawing

## 6. Key Definitions

- **ESC key**: Pressing the ESC key allows you to navigate back to the upper level of the menu. When the instrument triggers an alarm, pressing the ESC key temporarily mutes the alarm sound.

- **MENU key**: The MENU key is used to enter and exit the menu. During an alarm, pressing the MENU key once activates the mute mode, indicated by a mute icon in the top right corner of the display. To cancel the mute mode, press the ESC key once. Press and hold the MENU key to force the instrument into idle mode. To unlock the idle mode, press and hold the MENU key again.

- **Power key**: The power key turns the instrument on or off. A long press of the power key for 5 seconds will toggle the instrument's power based on its current state. The power key also acts as a confirmation key for certain operations.

- ≪ **Left Arrow key**: This directional key moves the cursor to the left. It is used to shift the cursor position left during numerical selection or to navigate through menu options.

- ≫ **Right Arrow key**: This directional key moves the cursor to the right. It is used to adjust number values and to page down in certain situations, such as scrolling through a menu or options.

# 7. Operating the Instrument

**Turning the Instrument On**

Press and hold "⏻" for 5 seconds. Release "⏻" when the display turns on. After starting up, the instrument will show a countdown timer for self-checking, pump preheating, and sensor preheating.

(Fig. 1 and Fig. 2)

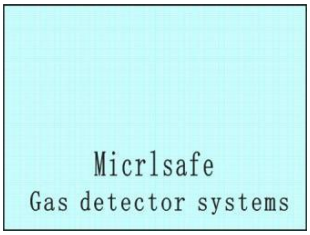



Fig. 1

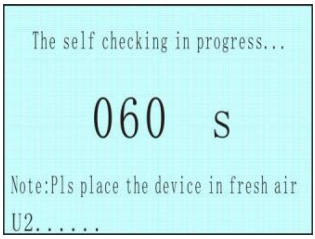



Fig. 2

The instrument name, address number and software version will be displayed. (Fig. 3)

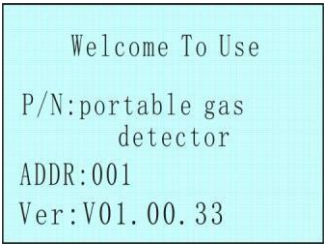



Fig. 3

**Turning the Instrument Off**

Press and hold "⏻" for 5 seconds. A 5-second countdown to shutoff begins. Once the countdown starts, "⏻" can be released.

**Changing the Password**

Press the MENU key to enter the password interface, the initial password is: 11111.

Press "≪" to move the cursor to the password, then press the power key to select single digit. Use "≫" to enter the digit. Press "≪" to move the cursor to the left. After filling in the password, press the power key to enable the password. Then move the cursor to Login using either Left or Right key. (Fig. 4 and Fig. 5)

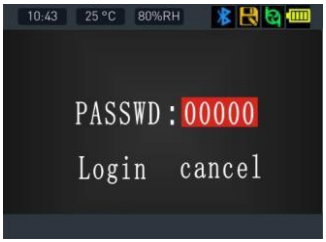



Fig. 4


Fig. 5

# 8. Menu operation instructions

## 8.1 Zero (Fresh Air) Calibration

Zero calibration is used to calibrate the sensor when significant fluctuations are observed or when accurate detection at very low concentrations is required. Enter the function by selecting "ZERO" on the main menu and pressing "⏻". (Fig. 6)


Fig. 6

To perform a zero calibration, connect the instrument to a "fresh" air source such as from a cylinder or Tedlar bag (optional accessory). The "fresh" air refers to clean, dry air without organic impurities and an oxygen value of 20.9%. If a dedicated air cylinder containing such "fresh" air is not available, you can use any clean ambient air without detectable contaminants or a charcoal filter as an alternative.

After connecting the "fresh" air, select the VOC, then press "⏻" to start the zero calibration. If the calibration was successful, the status will change from "CAL" to "TRUE". (Fig. 7 and Fig. 8)


Fig. 7

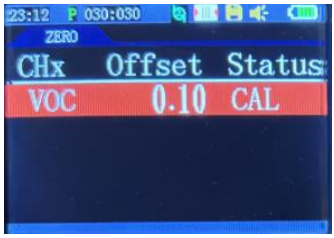



Fig. 8

If the calibration was not successful, the status will change to "False".

## 8.2 Span Calibration

The Span calibration function is used to correct the deviation between the concentration detected by the instrument and the standard gas concentration. Enter the function by selecting "SPAN" on the main menu and pressing "⏻".(Fig. 9 and Fig. 10)


Fig. 9


Fig. 10

Use "⏻", "≪",and "≫" to input the concentrations of the span gases. (Fig. 11 and Fig 12)


Fig. 11


Fig. 12

Press "⏻" to confirm the number adjusted. If successful, the status will change from "CAL" to "TRUE". If unsuccessful, the status will show "FALSE".

**Calibration Notes**

Typically, performing only the span calibration function is enough for most performance and accuracy needs.

To protect the instrument from over pressure, a three-way flow diverter is required during calibration. You can use a flow-limiting regulator or a flow-matching regulator for this purpose.

The concentration gradient should follow the order of:

**Level I** less than **Level II** less than **Level III**

The calibration sequence should be:

**Level I → Level II → Level III**

## 8.3 Restore Factory Settings

The factory restore function fully resets the instrument to default settings. Enter the function by selecting "RESET" on the main menu and pressing "⏻".

(Fig. 13 and Fig. 14)


Fig. 13


Fig. 14

Press "⏻" to enter the selected items to be restored, press "⏻" again to reset. (Fig. 15)

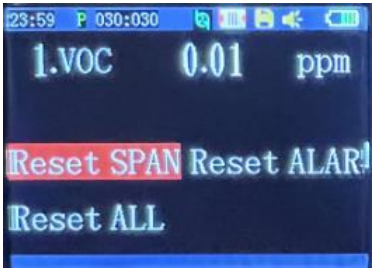



Fig. 15

If successful, the status will change from "Reset SPAN" to "TRUE". If unsuccessful, the status will show "FALSE".

## 8.4 Data Logging

Enter the data records by selecting "RECORD" on the main menu and pressing "⏻". (Fig. 16 and Fig. 17)


Fig. 16


Fig. 17

Users can select specific start and end timings to curtail the results, specifying the range of data that will be shown or selected. Use "⏻" and "≪" to enter the targeted time. (Fig. 18 and Fig. 19)


Fig. 18

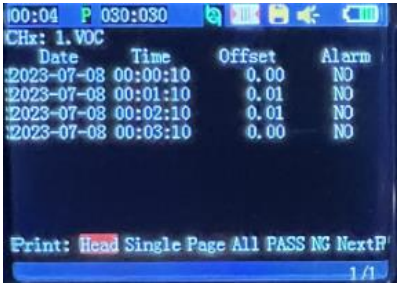



Fig. 19

## 8.5 Alarm Settings

Enter the Alarm settings by selecting "ALARM" on the main menu and pressing "⏻". (Fig. 20 and Fig.21)

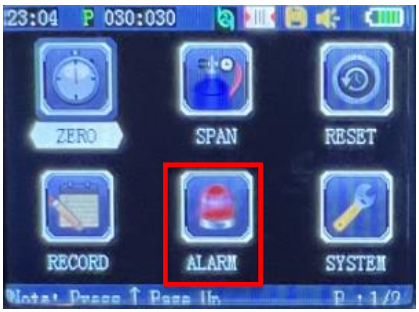



Fig. 20


Fig. 21

**Alarm Limits Settings (Data):** Use the "⏻", "<<", and ">>" to modify the high/low limit values. (Fig. 22)

Low limit value (AL Value) refers to the first-level alarm value, which can be modified.

High limit value (AH Value) refers to the second-level alarm value, which can be modified.


Fig. 22

**Alarm Parameter Settings (PARM):** Use the "<<" and ">>" to switch the cursor and "⏻" to select the parameter. (Fig. 23)

Alarm type**:** Change alarm options to sound + light, sound + light + vibration, vibration only, or no alarm.

Alarm Sound**:** Choose from 3 available sounds.

Alarm hysteresis: This allows you to set a delay before the alarm is triggered. If set to 0, the alarm will immediately activate once the value reaches the alarm limit. However, if you want to avoid frequent alarms near the critical alarm set point, you can specify a certain value for the alarm hysteresis by using the "⏻" key, "<<" key, and ">>" key. (Fig. 23)

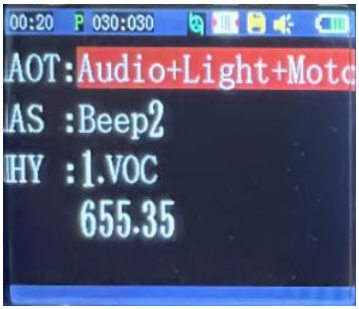



Fig. 23

**Alarm Mode:** You can change it to TWA/STEL mode or set it to "Disable Alarm" mode. (Fig. 24)


Fig. 24

## 8.6 System Settings

Enter the system settings by selecting "System" on the main menu and pressing "⏻". (Fig. 25 and Fig. 26)


Fig. 25


Fig. 26

**Measurement range setting:** Range is set at the maximum measurement range of the PID sensor. If modification is required, please contact the manufacturer. (Fig. 27)


Fig. 27

**Time setting:** Use "⏻", "≪", and "≫" to select and modify. Then press "⏻" to save. (Fig. 28 and Fig. 29)


Fig. 28

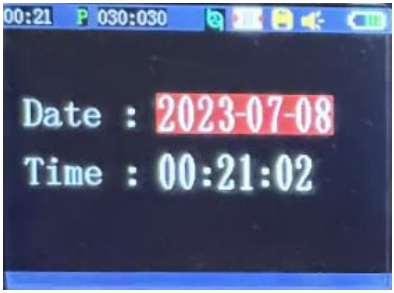



Fig. 29

**Change background colors:** users can select font colors, background colors, and backlight sleep timers at the BGC menu. You can restore default settings by selecting "Default Setting". (Fig. 30 and Fig. 31)


Fig. 30


Fig. 31

**Storage mode setting:** move the cursor to "RMS", press "⏻" to enter the storage settings. (Fig. 32)


Fig. 32

Two modes can be set: 'Timed Storage' and 'Alarm Trigger.' In the 'Timed Storage' mode, data is stored at regular intervals within each storage period. In contrast, the 'Alarm Trigger' mode only stores data when an alarm is triggered. Data will be stored only when the concentration value reaches the alarm set point; otherwise, no data will be stored.
(Fig. 33 and Fig 34)

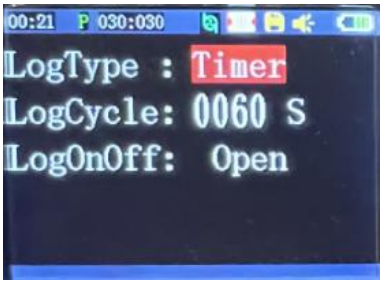



Fig. 33


Fig. 34

"LogCycle" sets the time interval for storing the data. It is only valid under 'Timed Storage' mode.

**Communication setting:** The communication function allows user to export data to the platform (Fig. 35 and Fig. 36)


Fig. 35


Fig. 36

**Equipment address:** address number of the local host can be set between 1-255.

**Communication interface:** automatic recognition.

**Baud rate:** communication speed, select 9600 for general purpose.

**Timing measurement:** the instrument starts detecting for a time period automatically. The instrument becomes "idle" after detection. Press and hold the "MENU" key to reactivate the instrument. The default measure time is 000 seconds. (Fig. 37)

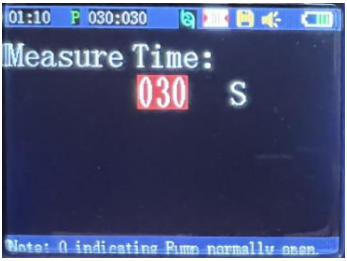



Fig. 37

**Password Reset:** allows user to reset password. (Fig. 38 and Fig. 39)


Fig. 38

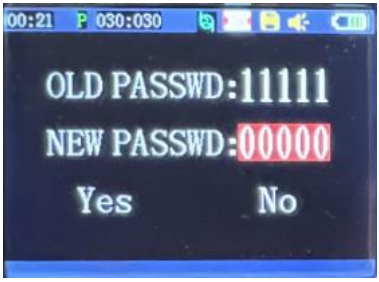



Fig. 39

## 8.7 Unit Setting

The unit setting function allows user to adjust the units as needed (ppm, VoL%, LEL%, ppb, pphm, mg/m$^3$, mg/L, g/m$^3$). Enter the system settings by selecting "UNIT" on the second page of the main menu and pressing " ⏻ ". (Fig. 40 and Fig. 41)

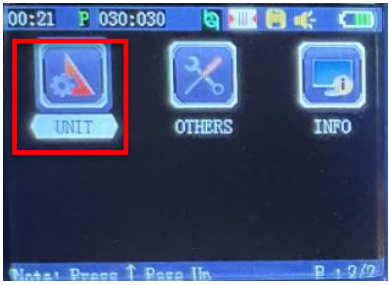



Fig. 40

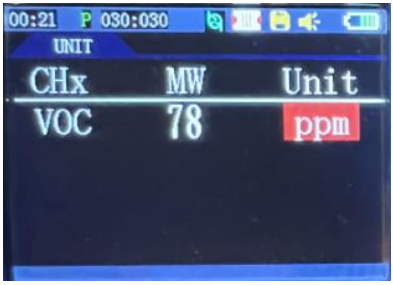



Fig. 41

## 8.8 Others

The "Others" screen shows the warmup timing, language, gas name, and max/min value of the target. Enter the others screen by selecting "OTHERS" on the second page of the main menu and pressing "⏻". (Fig. 42 and Fig. 43)

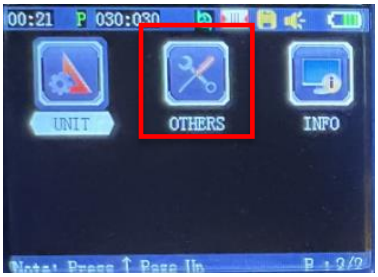



Fig. 42

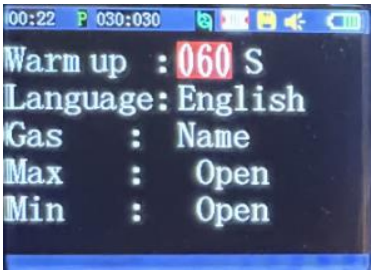



Fig. 43

**Warm up time:** This setting determines the preheating and stabilization time required for the sensor. It is not recommended to modify this setting.

**Language:** English/Chinese.

**Gas name:** Set as VOC, please contact the manufacturer if other names are required.

**Maximum value:** If you choose "Open," the instrument will show the highest value of both the current and previous measurements. (Fig. 44)

**Minimum value:** If you choose "Open," the instrument will show the highest value of both the current and previous measurements. (Fig. 44)


Fig. 44

## 8.9 Instrument Information

Instrument information allows users to see the settings of the instrument by selecting "INFO" on the second page of the main menu and pressing "". (Fig. 45)

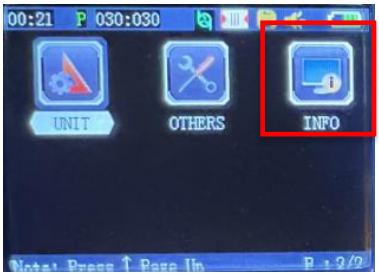



Fig. 45

**System:** Review the relevant information about this instrument.

(Fig. 46 and Fig. 47)

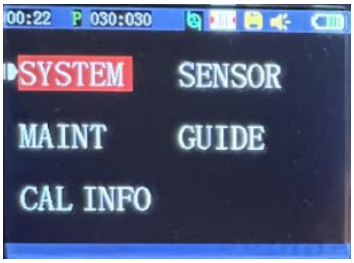



Fig. 46

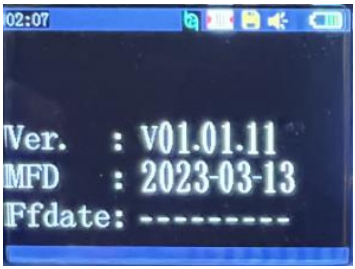
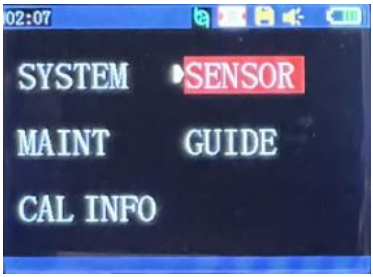



Fig. 47

**Sensor:** Review the lifespan, calibration date, and expiration date of the installed sensors, as shown in Fig. 48 and Fig. 49:




. Fig. 48

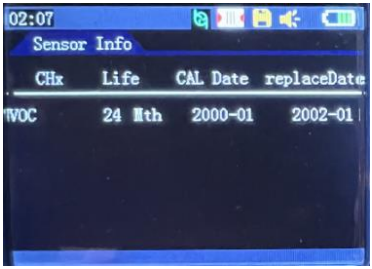



Fig. 49

**Maintenance/Cal records:** records the repair information and calibration information of this equipment. (Fig. 50 and Fig. 51)

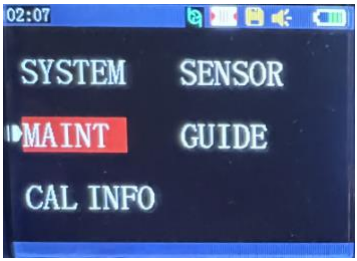



Fig. 50


Fig. 51

# 9. Troubleshooting

## 9.1 Not Working at Low Concentrations

1. **Check the pump functionality:** Ensure the pump is working correctly by listening for a vibration when it is active. Additionally, you can test the suction force by blocking the gas inlet with your finger for 2 seconds. If there is no suction force, it might indicate a problem with the pump. Also, inspect the gas inlet of the filter for any clogs. If it is clogged, replace the filter as it is a consumable part that can become blocked over time. Verify for gas leakage as well, as a lack of suction force might be due to poor sealing of the connecting joint.
2. **Perform zero calibration:** Use nitrogen gas or clean air to carry out the zero calibration. Once calibration is completed, proceed with the detection immediately.
3. **Factory restoring:** If the instrument still does not read after the above steps, perform a factory reset to restore the device to its default settings.
4. **Repeat step 2:** If the issue persists even after the factory reset, it might be necessary to repeat the zero calibration process.
5. **Check sensor connecting cable:** Inspect the sensor connecting cable for any damages or signs of a short-circuit.

6. **Verify target existence and concentration:** If none of the previous steps resolve the problem, check if the target substance exists in the environment being tested. Additionally, ensure that the concentration is not below the minimum detection limit value of the instrument, as concentrations lower than this value might not be detectable.

## 9.2 Fresh Air with Significant Value Fluctuations.

1. It is normal to observe short-term fluctuation at zero point if the fluctuation was less than 1% of the maximum range. Long term drifting of 2% is also expectable. If the fluctuation was more than 2%, check whether there was sample gas around, or the fluctuations were due to the instable air temperature and humidity. Under most circumstances, the instrument becomes stable once the environmental factors become consistent.

2. Verify whether the zero calibration or target point calibration was carried out for the instrument. If zero calibration was carried out at a target gas polluted environment, it might influence the low concentration detection. If the target point calibration was carried out in a polluted environment, or the calibration samples were inaccurate, it might cause the fluctuations of the results. For these 2 cases, factory restore may fix the issues.

3. If the issue persists, check if highly concentrated gas passed through the sensor, leading to detector contamination. If contamination is confirmed, run the instrument in clean air for 24 hours to restore the sensor's functionality. If the problem remains unresolved after attempting the above steps, evaluate the sensor's lifespan to determine if it requires replacement.

## 9.3 Detected Inaccurate Results

1. Confirm the accuracy of the gas concentration at the site: Ensure that the actual gas concentration matches the theoretical value. It is advisable to validate the instrument's accuracy by introducing standard gases or sending it to a third-party metrology organization for testing.
2. PID sensors are consumable parts. It is recommended to replace the sensor once a year. Under certain circumstances, severe environment would shorten the sensor life. Check the sensor life with the manufacturer, if it is close to the instrument maintenance time, a sensor replacement would be recommended.

## 9.4 False Alarms

1. Check whether the alarm setting had been modified.
2. Check whether the alarm method, alarm mode had been modified.
3. If the alarm is caused by unintentional modifications, it can be

resolved by restoring to the factory settings. If the problem still exists, it will require further checking for short circuit, open circuit, poor contact, sensor failure, etc. It is recommended to return the instrument to the manufacturer for a warranty.

# 10. Equipment Maintenance

In general, PID sensor would last over 12 months. It is recommended to calibrate the sensor every 3 months or 6 months. Replace the sensor every year to maintain the best performance if necessary.

## 10.1 Sensor Replacement

It is required to return the instrument to the manufacturer for sensor replacement. The instrument will be calibrated before shipping back to customers.

## 10.2 Sensor Calibration

Please refer to chapter 8.1 and 8.2 for details. **NEVER** start the procedure if the standard gas was not ready. If accidentally activated the calibration procedure, please restore to the factory setting.

## 11. Precautions

- It is recommended to use its original charger to charge the instrument. If a third-party charger was used, the specifications requirement would be between 4.2V, 2A and 5V, 2A.
- It is prohibited to replace the PID sensor when charging.
- It is prohibited to directly connect calibration gases to the instrument when performing calibration procedure. A three-way flow diverter is required to protect from the over pressure of the instrument. The recommended gas flow should be at least 500 mL/min.
- The operations such as installation, debugging, setting up must be conducted by professionals.
- The calibration should be carried out regularly. Sensor replacement would be required to fix certain issues.
- Avoid sampling the instrument when the gas is out of the sensor range.
- In cases of failure, abnormality, and in accurate detection, please first restore the instrument to the factory setting. If the problem existed, please contact the manufacturer.

# 12. Appendix

## Appendix 1. Theory of Measurable Matter

The NovaPID (10.6eV) can theoretically measure the following substances; however, their responses may vary slightly. For optimal performance, it's advised to calibrate the instrument with the target compound before use. Periodic calibration should be conducted based on the frequency of use.

| CAS # | COUMPOUND | IE (eV) |
|---|---|---|
| 75-07-0 | Acetaldehyde | 10.23 |
| 60-35-5 | Acetamide | 9.69 |
| 108-24-7 | Acetic anhydride | 10.0 |
| 67-64-1 | Acetone | 9.7 |
| 98-86-2 | Acetophenone | 9.28 |
| 506-96-7 | Acetyl bromide | 10.24 |
| 260-94-6 | Acridine | 7.8 |
| 107-02-8 | Acrolein | 10.1 |
| 463-49-0 | Allene | 9.69 |
| 107-18-6 | Allyl alcohol | 9.7 |
| 106-95-6 | Allyl bromide | 9.96 |
| 107-05-1 | Allyl chloride | 10.05 |
| 107-11-9 | Allylamine | 8.8 |
| 7664-41-7 | Ammonia | 10.07 |
| 628-63-7 | Amyl acetate | <9.9 |
| 75-85-4 | Amylene hydrate | 10.16 |
| 62-53-3 | Aniline | 7.72 |
| 104-94-9 | p-Anisidine | 7.08 |
| 100-66-3 | Anisole | 8.2 |
| 7784-42-1 | Arsine | 10.58 |
| 100-52-7 | Benzaldehyde | 9.5 |
| 71-43-2 | Benzene | 9.24 |

| CAS # | COUMPOUND | IE (eV) |
|---|---|---|
| 591-50-4 | Benzene iodide | 8.72 |
| 106-50-3 | 1,4-Benzenediamine | 6.87 |
| 108-98-5 | Benzenethiol | 8.3 |
| 98-08-8 | Benzenyl fluoride | 9.68 |
| 100-47-0 | Benzonitrile | 9.73 |
| 100-51-6 | Benzyl alcohol | 9.23 |
| 100-44-7 | Benzyl chloride | 9.1 |
| 92-52-4 | Biphenyl | 8.16 |
| 7726-95-6 | Bromine | 10.52 |
| 108-86-1 | Bromobenzene | 9 |
| 109-65-9 | 1-Bromobutane | 10.13 |
| 78-76-2 | 2-Bromobutane | 10.01 |
| 460-00-4 | p-Bromofluorobenzene | 9.02 |
| 75-25-2 | Bromoform | 10.5 |
| 816-40-0 | Bromomethyl ethyl ketone | 9.54 |
| 110-53-2 | 1-Bromopentane | 10.1 |
| 590-14-7 | 1-Bromopropene | 9.3 |
| 1003-09-4 | 2-Bromothiophene | 8.6 |
| 591-17-3 | m-Bromotoluene | 8.77 |
| 95-46-5 | o-Bromotoluene | 8.56 |
| 106-38-7 | p-Bromotoluene | 8.68 |
| 590-19-2 | 1,2-Butadiene | 9.33 |
| 106-99-0 | 1,3-Butadiene | 9.07 |
| 431-03-8 | 2,3-Butadione | 9.57 |
| 123-72-8 | Butanal | 9.82 |
| 106-97-8 | Butane | 10.53 |
| 107-92-6 | Butanoic acid | 10.17 |
| 623-42-7 | Butanoic acid, methyl ester | 10.07 |
| 71-36-3 | 1-Butanol | 9.99 |
| 78-92-2 | 2-Butanol | 9.88 |
| 75-65-0 | tert-Butanol | 9.9 |
| 123-73-9 | 2-Butenal, (E)- | 9.73 |
| 15798-64-8 | 2-Butenal, (Z)- | 9.75 |
| 624-64-6 | 2-Butene, (E)- | 9.1 |
| 590-18-1 | 2-Butene, (Z)- | 9.11 |
| 106-98-9 | 1-Butene | 9.55 |

| CAS # | COUMPOUND | IE (eV) |
|---|---|---|
| 109-75-1 | 3-Butenenitrile | 10.2 |
| 111-76-2 | 2-Butoxyethanol (EGBE) | 10 |
| 123-86-4 | Butyl acetate | 9.92 |
| 105-46-4 | sec-Butyl acetate | 9.9 |
| 540-88-5 | tert-Butyl acetate | 9.7 |
| 637-92-3 | tert-Butyl Ethyl ether | 9.39 |
| 564-04-5 | tert-Butyl Ethyl ketone | 8.98 |
| 815-24-7 | Di-tert-butyl ketone | 8.65 |
| 109-79-5 | n-Butyl mercaptan | 9.14 |
| 109-73-9 | Butylamine | 8.73 |
| 13952-84-6 | sec-Butylamine | 8.5 |
| 75-64-9 | tert-Butylamine | 8.5 |
| 104-51-8 | Butylbenzene | 8.69 |
| 135-98-8 | sec-Butylbenzene | 8.7 |
| 98-06-6 | tert-Butylbenzene | 8.68 |
| 75-66-1 | tert-Butyl mercaptan | 9.03 |
| 98-51-1 | 4-tert-Butyltoluene | 8.28 |
| 107-00-6 | 1-Butyne | 10.18 |
| 503-17-3 | 2-Butyne | 9.58 |
| 79-92-5 | Camphene | 8.86 |
| 76-22-2 | Camphor | 8.76 |
| 13956-29-1 | Cannabidiol | 6.18 |
| 105-60-2 | Caprolactam | 9.07 |
| 75-15-0 | Carbon disulfide | 10.07 |
| 13466-78-9 | δ-3-Carene | 8.61 |
| 10049-04-4 | Chlorine dioxide | 10.35 |
| 2268-31-7 | cis-1-Chloro-2-fluoroethene | 9.86 |
| 2268-32-8 | trans-1-Chloro-2-fluoroethene | 9.87 |
| 107-20-0 | Chloroacetaldehyde | 10.48 |
| 96-34-4 | Chloroacetic acid methyl ester | 10.3 |
| 532-27-4 | 2-Chloroacetophenone | 9.44 |
| 108-90-7 | Chlorobenzene | 9.07 |
| 126-99-8 | 2-Chlorobutadiene | 8.83 |
| 616-27-3 | 1-Chlorobutanone | 9.54 |
| 627-42-9 | 2-Chloroethyl methyl ether | 10.05 |
| 625-98-9 | m-Chlorofluorobenzene | 9.22 |

| CAS # | COUMPOUND | IE (eV) |
|---|---|---|
| 348-51-6 | o-Chlorofluorobenzene | 9.18 |
| 615-41-8 | o-Chloroiodobenzene | 8.4 |
| 3188-13-4 | Chloromethoxyethane | 10.3 |
| 100-00-5 | p-Chloronitrobenzene | 9.99 |
| 95-57-8 | o-Chlorophenol | 9.28 |
| 96-43-5 | 2-Chlorothiophene | 8.74 |
| 108-41-8 | m-Chlorotoluene | 8.7 |
| 95-49-8 | o-Chlorotoluene | 8.72 |
| 106-43-4 | p-Chlorotoluene | 8.69 |
| 108-39-4 | m-Cresol | 8.29 |
| 95-48-7 | o-Cresol | 8.46 |
| 106-44-5 | p-Cresol | 8.34 |
| 98-82-8 | Cumene | 8. 73 |
| 287-23-0 | Cyclobutane | 9.8 |
| 110-82-7 | Cyclohexane | 9.88 |
| 108-93-0 | Cyclohexanol | 9.75 |
| 108-94-1 | Cyclohexanone | 9.16 |
| 110-83-8 | Cyclohexene | 8.95 |
| 108-91-8 | Cyclohexylamine | 8.4 |
| 629-20-9 | 1,3,5,7-Cyclooctatetraene | 8.43 |
| 542-92-7 | 1,3-Cyclopentadiene | 8.57 |
| 287-92-3 | Cyclopentane | 10.33 |
| 120-92-3 | Cyclopentanone | 9.26 |
| 142-29-0 | Cyclopentene | 9.01 |
| 75-19-4 | Cyclopropane | 9.86 |
| 2781-85-3 | Cyclopropene | 9.67 |
| 99-87-6 | p-cymene | 8.29 |
| 17702-41-9 | Decaborane(14) | 9.88 |
| 124-18-5 | Decane | 9.65 |
| 693-54-9 | 2-Decanone | 9.4 |
| 872-05-9 | 1-Decene | 9.42 |
| 110-52-1 | 1,4-Dibromobutane | 10.15 |
| 557-91-5 | 1,1-Dibromoethane | 10.17 |
| 106-93-4 | 1,2-Dibromoethane | 10.35 |
| 111-92-2 | N-Dibutylamine | 7.69 |
| 10061-01-5 | cis-1,3-Dichloro-1-Propene | < 10 |

| CAS # | COUMPOUND | IE (eV) |
|---|---|---|
| 78-88-6 | 1,2-Dichloro-2-propene | 9.82 |
| 116-54-1 | Dichloroacetic acid methyl ester | 10.44 |
| 95-50-1 | 1,2-Dichlorobenzene | 9.06 |
| 541-73-1 | 1,3-Dichlorobenzene | 9.1 |
| 106-46-7 | 1,4-Dichlorobenzene | 8.92 |
| 75-35-4 | 1,1-Dichloroethene (1,1-DCE) | 9.81 |
| 156-59-2 | cis-1,2-Dichloroethene | 9.66 |
| 156-60-5 | trans-1,2-Dichloroethene | 9.64 |
| 513-88-2 | 1,1-Dichloropropanone | 9.71 |
| 10061-02-6 | trans-1,3-Dichloropropene | < 10 |
| 77-73-6 | Dicyclopentadiene | 8.79 |
| 68334-30-5 | Diesel fuel #1 | 8 |
| 68334-30-5 | Diesel fuel #2 | 9 |
| 105-05-5 | p-Diethylbenzene | 8.40 |
| 110-81-6 | Diethyl disulfide | 8.77 |
| 352-93-2 | Diethyl sulfide | 8.42 |
| 100-37-8 | N,N-Diethyl-2-aminoethanol | 8.58 |
| 109-89-7 | N,N-Diethylamine | 7.9 |
| 367-11-3 | 1,2-Difluorobenzene; | 9.29 |
| 372-18-9 | 1,3-Difluorobenzene; | 9.33 |
| 540-36-3 | 1,4-Difluorobenzene; | 9.16 |
| 455-31-2 | Difluoromethyl benzene | 9.45 |
| 7783-07-5 | Dihydrogen selenide | 9.89 |
| 7783-09-7 | Dihydrogen telluride | 9.2 |
| 108-18-9 | Diisopropylamine | 7.6 |
| 110-71-4 | 1,2-Dimethoxyethane | 9.3 |
| 109-87-5 | Dimethoxymethane | 10.42 |
| 624-92-0 | Dimethyl disulfide (DMDS) | 8.97 |
| 115-10-6 | Dimethyl ether | 10.03 |
| 131-11-3 | Dimethyl phthalate | 9.64 |
| 75-18-3 | Dimethyl sulfide | 8.7 |
| 67-68-5 | Dimethyl Sulfoxide | 9.1 |
| 3658-80-8 | Dimethyl trisulfide | 8.85 |
| 19549-84-9 | 3,5-Dimethyl-4-heptanone | 9.04 |
| 127-19-5 | Dimethylacetamide (DMA) | 9.2 |
| 124-40-3 | Dimethylamine | 8.24 |

| CAS # | COUMPOUND | IE (eV) |
|---|---|---|
| 121-69-7 | Dimethylaniline | 7.12 |
| 513-81-5 | 2,3-Dimethylbutadiene | 8.71 |
| 75-83-2 | 2,2-Dimethylbutane | 10.07 |
| 79-29-8 | 2,3-Dimethylbutane | 10.04 |
| 68-12-2 | n,n-Dimethylformamide (DMF) | 9.13 |
| 111-43-3 | Di-n-propyl ether | 9.27 |
| 123-91-1 | 1,4-Dioxane | 9.19 |
| 101-84-8 | Diphenyl ether | 8.09 |
| 629-19-6 | Dipropyl disulfide | 8.62 |
| 142-84-7 | N-Dipropylamine | 8.6 |
| 107-21-1 | 1,2-Ethanediol | 10.55 |
| 64-17-5 | Ethanol | 10.48 |
| 100-40-3 | 4-Ethenylcyclohexene | 8.93 |
| 110-80-5 | 2-Ethoxyethanol (EGME) | 9.97 |
| 141-78-6 | Ethyl acetate | 10. 01 |
| 140-88-5 | Ethyl acrylate | 10.3 |
| 74-96-4 | Ethyl bromide | 10.24 |
| 105-39-5 | Ethyl chloroacetate | 10.2 |
| 60-29-7 | Ethyl ether | 9. 51 |
| 75-03-6 | Ethyl iodide | 9.35 |
| 542-85-8 | Ethyl isothiocyanate | 9.12 |
| 75-08-1 | Ethyl mercaptan | 9.29 |
| 515-84-4 | Ethyl trichloroacetate | 10.44 |
| 75-04-7 | Ethylamine | 9.5 |
| 100-41-4 | Ethylbenzene | 8. 77 |
| 74-85-1 | Ethylene | 10.51 |
| 75-21-8 | Ethylene oxide | 10.56 |
| 107-15-3 | Ethylenediamine | 9.25 |
| 151-56-4 | Ethylenimine | 9.2 |
| 622-96-8 | 4-Ethyltoluene | 8.5 |
| 98022-37-8 | Ethyl-trichloromethyl ether | 10.08 |
| 470-82-6 | Eucalyptol | ~9 |
| 462-06-6 | Fluorobenzene | 9.2 |
| 95-52-3 | 2-Fluorotoluene | 8.91 |
| 352-70-5 | 3-Fluorotoluene | 8.91 |
| 352-32-9 | 4-Fluorotoluene | 8.79 |

| CAS # | COUMPOUND | IE (eV) |
|---|---|---|
| 75-12-7 | Formamide | 10.16 |
| 617-84-5 | Formamide, N,N-diethyl- | 8.89 |
| 542-55-2 | Formic acid, 2-methylpropyl ester | 10.46 |
| 110-74-7 | Formic acid, propyl ester | 10.54 |
| 110-00-9 | Furan | 8.88 |
| 98-01-1 | Furfural | 9.22 |
| 141-27-5 | Geranial | ~9 |
| 106-24-1 | Geraniol | ~9 |
| 142-82-5 | Heptane | 9.93 |
| 110-43-0 | 2-Heptanone | 9.27 |
| 106-35-4 | 3-Heptanone | 9. 15 |
| 123-19-3 | 4-Heptanone | 9.1 |
| 392-56-3 | Hexafluorobenzene | 9.9 |
| 116-15-4 | Hexafluoropropene | 10.6 |
| 87-85-4 | Hexamethylbenzene | 7.85 |
| 107-46-0 | hexamethyldisiloxane | 9.59/9.88 |
| 110-54-3 | n-Hexane | 10.13 |
| 142-62-1 | Hexanoic acid | ≤10.12 |
| 111-27-3 | Hexanol | 10.35 |
| 591-78-6 | 2-Hexanone | 9.35 |
| 592-41-6 | 1-Hexene | 9.44 |
| 6753-98-6 | α-Humulene | 9.54 |
| 302-01-2 | Hydrazine | 8.1 |
| 57-14-7 | Hydrazine, 1,1-dimethyl- | 7.29 |
| 60-34-4 | Hydrazine, methyl- | 7.7 |
| 100-63-0 | Hydrazine, phenyl- | 7.86 |
| 7783-06-4 | Hydrogen sulfide | 10.46 |
| 123-31-9 | Hydroquinone | 7.94 |
| 7803-49-8 | Hydroxylamine | 10.00 |
| 120-72-9 | Indole | 7.76 |
| 83-34-1 | Indole, 3-methyl- | 7.51 |
| 7553-56-2 | Iodine | 9.31 |
| 542-69-8 | 1-Iodobutane | 9.23 |
| 513-48-4 | 2-Iodobutane | 9.1 |
| 628-17-1 | 1-Iodopentane | 9.2 |
| 615-37-2 | 2-Iodotoluene | 8.65 |

| CAS # | COUMPOUND | IE (eV) |
|---|---|---|
| 625-95-6 | 3-Iodotoluene | 8.6 |
| 624-31-7 | 4-Iodotoluene | 8.5 |
| 78-84-2 | Isobutanal | 9.72 |
| 78-83-1 | Isobutanol | 10.02 |
| 115-11-7 | Isobutene | 9.23 |
| 110-19-0 | Isobutyl acetate | 9.97 |
| 106-63-8 | Isobutyl acrylate | ~9.5 |
| 78-77-3 | Isobutyl bromide | 10.09 |
| 513-38-2 | Isobutyl iodide | 9.18 |
| 108-83-8 | Isobutyl ketone | 9.01 |
| 513-44-0 | Isobutyl mercaptan | 9.12 |
| 78-81-9 | iso-Butylamine | 8.5 |
| 538-93-2 | Isobutylbenzene | 8.71 |
| 78-59-1 | Isophorone | 9.07 |
| 78-79-5 | Isoprene | 8.86 |
| 557-93-7 | Isopropenyl bromide | 9.58 |
| 108-21-4 | Isopropyl acetate | 9.99 |
| 67-63-0 | Isopropyl alcohol | 10.17 |
| 75-26-3 | Isopropyl bromide | 10.1 |
| 108-20-3 | Isopropyl ether | 9.2 |
| 75-30-9 | Isopropyl iodide | 9.19 |
| 75-31-0 | isopropylamine | 8.6 |
| 463-51-4 | Ketene | 9.62 |
| 75-74-1 | Lead, tetramethyl- | 8.5 |
| 5989-27-5 | d-Limonene | 8.3 |
| 14049-11-7 | Linalool oxide | ~9 |
| 141-79-7 | Mesityl oxide | 9.10 |
| 334-88-3 | Methane, diazo- | 9.00 |
| 74-95-3 | Methane, dibromo- | 10.41 |
| 124-48-1 | Methane, dibromochloro- | 10.59 |
| 462-95-3 | Methane, diethoxy- | 9.7 |
| 75-11-6 | Methane, diiodo- | 9.46 |
| 74-88-4 | Methane, iodo- | 9.54 |
| 540-67-0 | Methoxyethane | 9.72 |
| 109-86-4 | 2-Methoxyethanol | 10.13 |
| 107-25-5 | 1-Methoxyethylene | 8.93 |

| CAS # | COUMPOUND | IE (eV) |
|---|---|---|
| 79-20-9 | Methyl acetate | 10.25 |
| 96-33-3 | Methyl acrylate | 9.9 |
| 93-58-3 | Methyl benzoate | 9.32 |
| 74-83-9 | Methyl bromide | 10.54 |
| 78-93-3 | Methyl ethyl ketone | 9.52 |
| 624-89-5 | Methyl ethyl sulfide | 8.55 |
| 108-10-1 | Methyl isobutyl ketone | 9.3 |
| 547-63-7 | Methyl isobutyrate | 9.98 |
| 563-80-4 | Methyl isopropyl ketone | 9.31 |
| 74-93-1 | Methyl mercaptan | 9.44 |
| 80-62-6 | Methyl methacrylate | 9.7 |
| 1634-04-4 | Methyl tert-butyl ether (MTBE) | 9.48 |
| 75-97-8 | Methyl tert-butyl ketone | 9.14 |
| 563-46-2 | 2-Methyl-1-butene | 9.12 |
| 563-45-1 | 3-Methyl-1-butene | 9.51 |
| 513-35-9 | 2-Methyl-2-butene | 8.69 |
| 611-15-4 | 1-Methyl-2-vinylbenzene | 8.2 |
| 74-89-5 | Methylamine | 8.9 |
| 100-61-8 | N-Methylaniline | 7.38 |
| 96-17-3 | 2-Methylbutanal | 9.59 |
| 590-86-3 | 3-Methylbutanal | 9.72 |
| 78-78-4 | 2-Methylbutane | 10.32 |
| 108-87-2 | Methylcyclohexane | 9.85 |
| 25639-42-3 | Methylcyclohexanol | 9.8 |
| 589-92-4 | 4-Methylcyclohexanone | 9.16 |
| 591-47-9 | 4-Methylcyclohexene | 8.91 |
| 96-37-7 | Methylcyclopentane | 9.7 |
| 594-11-6 | Methylcyclopropane | 9.3 |
| 534-22-5 | 2-Methylfuran | 8.39 |
| 592-27-8 | 2-Methylheptane | 9.84 |
| 107-83-5 | 2-Methylpentane | 10.12 |
| 96-14-0 | 3-Methylpentane | 10.08 |
| 108-99-6 | β-Methylpyridine | 9.0 |
| 872-50-4 | n-Methylpyrrolidinone | 9.17 |
| 141-43-5 | Monoethanolamine | 8.96 |
| 110-91-8 | Morpholine | 8.88 |

| CAS # | COUMPOUND | IE (eV) |
|---|---|---|
| 123-35-3 | β-Myrcene | 8.2 |
| 91-20-3 | Naphthalene | 8.14 |
| 463-82-1 | Neopentane | 10.3 |
| 75-84-3 | Neopentyl alcohol | 9.72 |
| 13463-39-3 | Nickel tetracarbonyl | 8.27 |
| 10102-43-9 | Nitric oxide | 9.26 |
| 98-95-3 | Nitrobenzene | 9.94 |
| 10102-44-0 | Nitrogen dioxide | 9.59 |
| 99-99-0 | 4-Nitrotoluene | 9.46 |
| 111-84-2 | Nonane | 9.71 |
| 821-55-6 | 2-Nonanone | 9.32 |
| 502-56-7 | 5-Nonanone | 9.1 |
| 124-11-8 | 1-Nonene | 9.42 |
| 811-97-2 | Norflurane | 10.12 |
| 111-65-9 | Octane | 9.8 |
| 106-68-3 | 3-Octanone | 9.19 |
| 589-63-9 | 4-Octanone | 9.1 |
| 111-66-0 | 1-Octene | 9.43 |
| 123-63-7 | Paraldehyde | ~9.7 |
| 19624-22-7 | Pentaborane(9) | 9.90 |
| 1574-41-0 | cis-1,3-Pentadiene | 8.62 |
| 2004-70-8 | trans-1,3-Pentadiene | 8.6 |
| 363-72-4 | Pentafluorobenzene | 9.84 |
| 700-12-9 | Pentamethylbenzene | 7.92 |
| 110-62-3 | Pentanal | 9.82 |
| 123-54-6 | 2,4-Pentandione | 8.85 |
| 109-66-0 | Pentane | 10.37 |
| 71-41-0 | 1-Pentanol | 10.38 |
| 6032-29-7 | 2-Pentanol | 9.78 |
| 584-02-1 | 3-Pentanol | 9.76 |
| 107-87-9 | 2-Pentanone | 9.38 |
| 96-22-0 | 3-Pentanone | 9.31 |
| 109-67-1 | 1-Pentene | 9.5 |
| 3741-00-2 | Pentylcyclopentane | 9.91 |
| 627-19-0 | 1-Pentyne | 10.10 |
| 355-63-5 | Perfluoro-1-heptene | 10.48 |

| CAS # | COUMPOUND | IE (eV) |
|---|---|---|
| 682-63-2 | Perfluorobutadiene | 9.5 |
| 754-34-7 | Perfluoropropyl iodide | 10.36 |
| 107-98-2 | Propylene glycol | 9.54 |
| 108-95-2 | Phenol | 8.5 |
| 103-71-9 | Phenyl carbonimide | 8.77 |
| 7803-51-2 | Phosphine | 10.1 |
| 7719-12-2 | Phosphorus trichloride | 9.90 |
| 80-56-8 | α-Pinene | 8.07 |
| 127-91-3 | β-Pinene | 8.07 |
| 105-37-3 | Propanoic acid, ethyl ester | 10 |
| 71-23-8 | 1-Propanol | 10.22 |
| 107-19-7 | Propargyl alcohol | 10.5 |
| 79-06-1 | 2-Propenamide | 10.0 |
| 115-07-1 | Propene | 9.73 |
| 123-38-6 | Propionaldehyde | 9.96 |
| 79-09-4 | Propionic acid | 10.44 |
| 109-60-4 | n-Propyl acetate | 10.04 |
| 106-94-5 | Propyl bromide | 10.18 |
| 107-08-4 | Propyl iodide | 9.26 |
| 107-03-9 | Propyl mercaptan | 9.2 |
| 75-33-2 | 2-Propyl mercaptan | 9.15 |
| 111-47-7 | Propyl sulfide | 8.34 |
| 107-10-8 | Propylamine | 8.78 |
| 103-65-1 | Propyl benzene | 8.72 |
| 57-55-6 | Propylene glycol | 10.04 |
| 108-65-6 | Propylene glycol methyl ether | < 10 |
| 75-56-9 | Propylene oxide | 10.22 |
| 75-55-8 | 1,2-Propylenimine | 9.0 |
| 74-99-7 | Propyne | 10.36 |
| 110-86-1 | Pyridine | 9.26 |
| 626-64-2 | 4-Pyridinol | 9.8 |
| 504-29-0 | 2-Pyridylamine | 8.1 |
| 109-97-7 | Pyrrole | 8.207 |
| 91-22-5 | Quinoline | 8.63 |
| 7803-52-3 | Stibine | 9.4 |
| 100-42-5 | Styrene | 8.46 |

| CAS # | COUMPOUND | IE (eV) |
|---|---|---|
| 126-33-0 | Sulfolane | 9.8 |
| 10025-67-9 | Sulfur monochloride | 9.66 |
| 98-55-5 | α-Terpineol | ~9 |
| 586-62-9 | Terpinolene | 8.1 |
| 80-26-2 | α-Terpinyl acetate | ~9 |
| 79-27-6 | 1,1,2,2-Tetrabromoethane | ~10 |
| 127-18-4 | Tetrachloroethylene | 9.32 |
| 78-10-4 | Tetraethyl silicate | 9.77 |
| 551-62-2 | 1,2,3,4-Tetrafluorobenzene | 9.61 |
| 2367-82-0 | 1,2,3,5-Tetrafluorobenzene | 9.55 |
| 327-54-8 | 1,2,4,5-Tetrafluorobenzene | 9.39 |
| 116-14-3 | Tetrafluoroethylene | 10.14 |
| 56282-24-7 | Tetrahydrocannabinol | 6.03 |
| 109-99-9 | Tetrahydrofuran (THF) | 9.54 |
| 119-64-2 | Tetrahydronaphthalene | 8.46 |
| 142-68-7 | Tetrahydropyran | 9.26 |
| 95-93-2 | 1,2,4,5-Tetramethylbenzene | 8.03 |
| 563-79-1 | Tetramethylethylene | 8.27 |
| 75-76-3 | Tetramethylsilane | 9.80 |
| 110-02-1 | Thiophene | 8.86 |
| 108-88-3 | Toluene | 8.82 |
| 95-53-4 | o-Toluidine | 7.44 |
| 598-16-3 | Tribromoethylene | 9.27 |
| 102-82-9 | Tributylamine | 7.4 |
| 120-82-1 | 1,2,4-Trichlorobenzene | 9.04 |
| 79-01-6 | Trichloroethylene | 9.45 |
| 78-40-0 | Triethyl phosphate | 10.0 |
| 122-52-1 | Triethyl phosphite | 8.3 |
| 617-86-7 | Triethyl silane | 9.5 |
| 121-44-8 | Triethylamine (TEA) | 7.5 |
| 353-83-3 | 1,1,1-Trifluoro-2-iodoethane | 10 |
| 367-23-7 | 1,2,4-Trifluorobenzene | 9.37 |
| 372-38-3 | 1,3,5-Trifluorobenzene | 9.3 |
| 359-11-5 | Trifluoroethylene | 10.14 |
| 2314-97-8 | Trifluoroiodomethane | 10.4 |
| 401-75-2 | Trifluoromethylcyclohexane | 10.46 |

| CAS # | COUMPOUND | IE (eV) |
|---|---|---|
| 149-73-5 | Trimethoxymethane | 9.5 |
| 2768-02-7 | Trimethoxyvinylsilane | ~9.5 |
| 512-56-1 | Trimethyl phosphate | 10.0 |
| 5857-36-3 | 2,2,4-Trimethyl-3-pentanone | 8.8 |
| 75-50-3 | Trimethylamine | 7.85 |
| 526-73-8 | 1,2,3-Trimethylbenzene | 8.48 |
| 95-63-6 | 1,2,4-Trimethylbenzene | 8.27 |
| 108-67-8 | 1,3,5-Trimethylbenzene | 8.4 |
| 507-19-7 | Trimethylbromomethane | 9.92 |
| 109-64-8 | Trimethylene bromide | 10.07 |
| 503-30-0 | Trimethylene oxide | 9.65 |
| 540-84-1 | 2,2,4-Trimethylpentane | 9.86 |
| 993-07-7 | Trimethylsilane | 9.9 |
| 110-88-3 | Trioxane | 10.3 |
| 9005-90-7 | Turpentine | ~8 |
| 1120-21-4 | Undecane | 9.56 |
| 108-05-4 | Vinyl acetate | 9.2 |
| 593-60-2 | Vinyl bromide | 9.82 |
| 75-01-4 | Vinyl chloride | 9.99 |
| 109-92-2 | Vinyl ethyl ether | ~8.98 |
| 75-02-5 | Vinyl fluoride | 10.37 |
| 695-12-5 | Vinylcyclohexane (VCH) | 9.51 |
| 7525-62-4 | 3-Vinylethylbenzene | 8.35 |
| 75-38-7 | Vinylidene difluoride | 10.29 |
| 7291-09-0 | Vinylsilane | 10.4 |
| 108-38-3 | m-Xylene | 8.56 |
| 95-47-6 | o-Xylene | 8.56 |
| 106-42-3 | p-Xylene | 8.44 |
| 1300-73-8 | Xylidine | 7.5 |
| 95-68-1 | m-Xylidine | 7.65 |

**For more product information, please visit：**

**www.nanovaenv.com**

Copyright © 2022 Nanova Environmental, Inc.
The content of this document is subject to change without notice in future editions.
Nanova Environmental, Inc. shall not be liable for any incidental or consequential damages arising from the use of this product and this document.

Nanova
Environmental

**Nanova Environmental Technology Co., Ltd**
3334 Brown Station Rd, Columbia
MO 65202, United States
www.nanovaenv.com