



# HANNA instruments HI6421P Advanced Dissolved Oxygen Benchtop Meter User Guide

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**HANNA instruments HI6421P Advanced Dissolved Oxygen Benchtop Meter**



## Product Information

### HI6421P Advanced Dissolved Oxygen Benchtop Meter

The HI6421P Advanced Dissolved Oxygen Benchtop Meter is a high-precision instrument used to measure the concentration of dissolved oxygen in water samples. The meter comes with a pH electrode and temperature probe for accurate measurements. It has a capacitive touchscreen display and can be connected to a computer via USB or Ethernet. The package includes accessories such as membrane cap and O-ring, electrolyte solution, zero oxygen solution, and calibration beakers.

All Hanna instruments conform to the CE European Directives and UK Standards, and our production facilities are ISO 9001 certified. HI6421P is warranted for a period of two years, and the probe is warranted for six months against defects in workmanship and materials when used for their intended purpose and maintained according to instructions.

## Product Usage Instructions

1. Place the arm holder in position and plug in the pH electrode and temperature probe.
2. Connect the power cable to the meter and plug it into the mains.
3. Press the ON/OFF button to start the meter.
4. Remove the transparent film that protects the capacitive touchscreen before operating the meter.
5. For measurement, ensure adequate water movement either manually or by using a stirrer. If necessary, perform oxygen replenishment.
6. For calibration, discard the electrolyte if needed, refill, and tap the sides. Reinstall.
7. To log in, power on the meter and tap "HI6421" on the screen.

Tap “Users” and then “Edit Users” to enter Account Management. Tap “Create Account” to create a new account or “Login” to access an existing account.

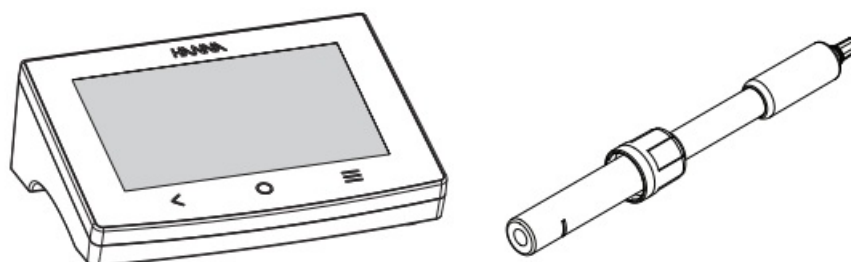
8. For technical information, email [tech@hannainst.com](mailto:tech@hannainst.com) or visit [www.hannainst.com](http://www.hannainst.com).

Please retain the user manual for future use.

Dear Customer, thank you for choosing Hanna Instruments.

## Package contents

- HI6421P
- HI764833 polarographic DO probe



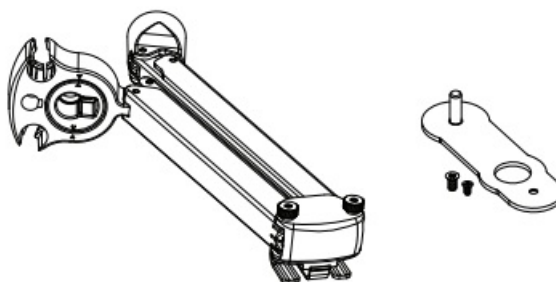
- Membrane cap and O-ring (2 pcs.)



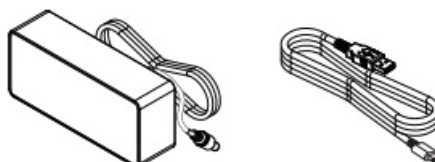
- Electrolyte solution, 30 mL (1 pc.)



- Electrode arm with base plate and screws (mounting)



- 24 VDC power adapter and USB-C to USB-A cable



- Probe quality certificate, instrument quality certificate, quick reference guide



Hanna® is committed to developing and deploying digital solutions with a positive impact on the environment and climate.

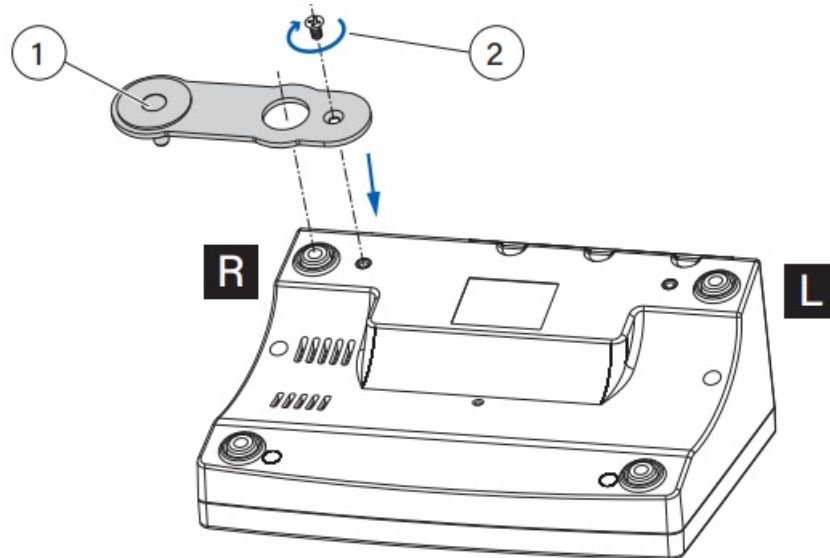
Please scan the QR code or follow the link to download the user manual.

<https://manuals.hannainst.com/HI6421>



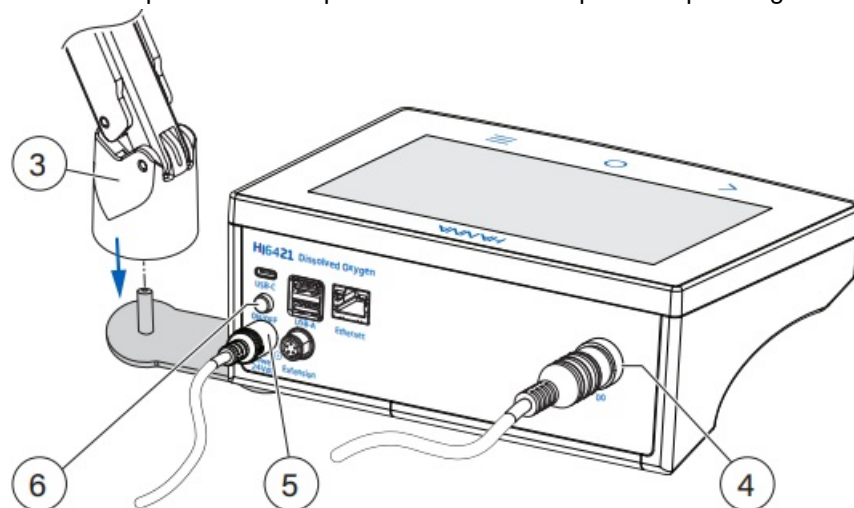
## Getting started

Identify the base plate (1) – to be attached to the L or the R side – and mounting screw (2) and proceed as illustrated here.




With the arm holder (3) in position and the pH electrode (4) and temperature probe (5) plugged in, connect the power cable (6) and plug into the mains. Press the ON/OFF button (7) to start.

Remove the transparent film that protects the capacitive touchscreen prior to operating the meter.



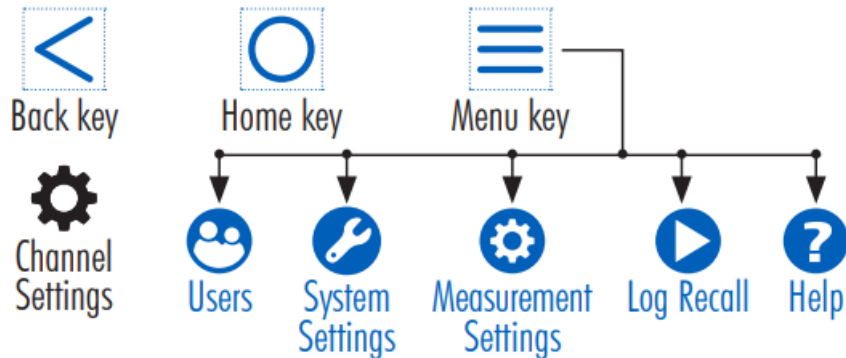
## Operating language & Access to support


- At first power on default operating language is English. Browse the language window and select operating language from list of supported options.
- To access support, tap  and select .
- On first access the benchtop's name is used as default user name and no password is required.

## Device handling & Safety precautions

- Transport the unit with all cables removed
- Do not puncture the capacitive touchscreen
- Do not insert objects into the ports, spaces around keys other than the intended cable, USB drive

## Capacitive touchscreen



- return to a previous hierarchical menu level
- access to measurement screen & configured profile
- access to:
  - Users – login & rights configuration
  - System Settings – system configuration, connectivity & printing
  - Measurement Settings – measurement configuration
  - Log Recall – logged measurement data
  - Help – support
-  from measurement screen, tap to access measurement menu

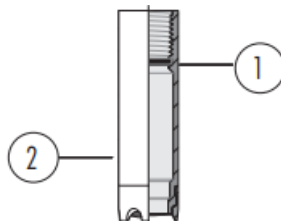
## Probe usage guidelines & Calibration tips

**Accessories:** membrane cap and O-ring, electrolyte solution, zero oxygen solution, calibration beakers

- Unscrew the shipping cap and save for calibration.



- Take one O-ring and one membrane cap and position the O-ring (1) in the cap (2).



- Rinse the membrane cap with electrolyte and discard.
- Fill the cap, above the O-ring, with electrolyte and tap the side walls to dislodge bubbles that may adhere to the threads.

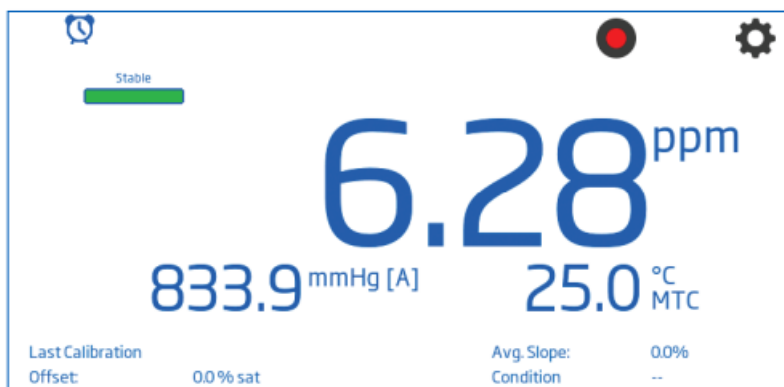
- Over a sink, with the cathode facing down, screw the cap counter clockwise until the threads are fully engaged.
- Rinse the probe and inspect the membrane for trapped bubbles.  
If any, discard the electrolyte, refill, and tap the sides. Reinstall.

### Calibration tips




- Ensure the probe is correctly plugged in and turn on the meter.
- Allow 15 minutes for probe polarization conditioning.
- 100% saturation calibration: pour some water into supplied cap and screw the cap onto the probe, kept in vertical position.  
Allow 15 minutes for air to become water saturated.
- 0% saturation calibration: pour HI7040 zero oxygen solution into a beaker and gently stir for 2-3 minutes.  
Gently tap the probe to dislodge any air bubbles.
- Wait for stable reading to calibrate.

### Measurement tips

- Work with recently calibrated probes.
- Place probe in sample and allow 1 minute for reading to stabilize.
- For accurate measurements the membrane needs constant oxygen replenishment. Ensure adequate water movement either manually or by use of a stirrer.



### Logging in & Creating a new account

1. Power the meter and tap .
2. Tap  followed by .
3. Tap Edit Users to enter Account Management.



4. Tap  to enable Account Creation and Logins. Tap  to return.



5. Tap Logout to enter Users screen. Tap the plus symbol avatar.



6. Input user name and tap .

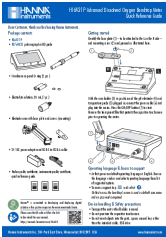
7. Enter password and tap . Re-enter password to confirm.

All Hanna instruments conform to the CE European Directives and UK Standards, and our production facilities are ISO 9001 certified. HI6421P is warranted for a period of two years and the probe for six months against defects in workmanship and materials when used for their intended purpose and maintained according to instructions.

For technical information e-mail us at [tech@hannainst.com](mailto:tech@hannainst.com). Visit [www.hannainst.com](http://www.hannainst.com) for more information about Hanna Instruments and our products.0

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## Documents / Resources

	<p><a href="#">HANNA instruments HI6421P Advanced Dissolved Oxygen Benchtop Meter</a> [pdf] User Guide</p> <p>HI6421P Advanced Dissolved Oxygen Benchtop Meter, HI6421P, Advanced Dissolved Oxygen Benchtop Meter, Dissolved Oxygen Benchtop Meter, Oxygen Benchtop Meter, Benchtop Meter, Meter</p>
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## References

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