

HI98394 GPS Multiparameter Portable Meter with Autonomously Logging Probe

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Please scan the QR code or use the link below to download the user manual.
<https://manuals.hannainst.com/Hi98394>



Package Contents

Each **HI98394** is delivered in a rugged carrying case and supplied with:

- **HI7698394/4** Multisensor logging probe
- **HI7698296** Long protective probe shield
- Probe maintenance kit
- **HI7698194-1** pH/ORP sensor (pre-installed on the probe)
- **HI7698194-2** Galvanic DO sensor (pre-installed on the probe)
- **HI7698594-4** EC/Turbidity sensor (pre-installed on the probe)
- **HI7698293** Long calibration beaker
- **HI76983948** Atmospheric pressure box
- **HI9828-20** Quick calibration standard solution (230 mL)
- **HI9829-16** 0 FNU calibration solution (230 mL)
- **HI9829-17** 20 FNU calibration solution (230 mL)
- **HI9829-18** 200 FNU calibration solution (230 mL)
- **HI710036** Protective rubber boot (fitted on the meter)
- **HI920019** USB-C to USB-C cable
- 1.5V AA alkaline batteries (8 pieces)
- Quality certificates (instrument, probe, sensors)
- Quick reference guide
- Battery safety insert

Key Features

- Field-replaceable sensors with auto recognition
- Independent, pressure-compensated box for DO logging
- Internal 12-channel GPS receiver/antenna module
- Tutorial mode for sensor operation and calibration



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

All Hanna instruments conform to the CE European Directives and our production facilities are ISO 9001 certified. HI98394 is warranted for a period of two years (probe and sensors six months) against defects in workmanship and materials when used for their intended purpose and maintained according to instructions.



Please retain for future use.

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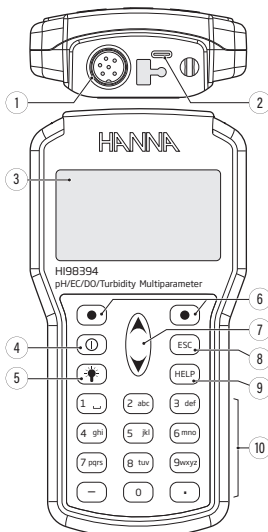
General Description

HI98394 is a portable multiparameter system that monitors up to **14 water-quality parameters** using the **HI7698394/4** autonomously logging probe. The probe has three sensor-connector sockets identified with color-coded triangles.

- ▼ connector 1 > **HI7698194-1** pH/ORP sensor
- ▽ connector 2 > **HI7698194-2** Galvanic Dissolved Oxygen sensor
- ▼ connector 3 > **HI7698594-4** Conductivity and Turbidity sensor

Functional & Keypad Description

- ① Probe connector
- ② USB-C connector
- ③ LCD Display
- ④ Power On/Off key
- ⑤ Lamp key
Turn the backlight on/off
- ⑥ Functional keys
Perform displayed function
- ⑦ Arrow keys
Navigate menus/options
- ⑧ ESC key
Return to previous screen
- ⑨ HELP key
Context-sensitive help
- ⑩ Alphanumeric keypad



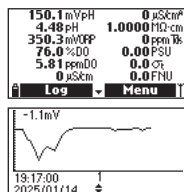
System Overview

Hardware Flexibility

- Up to three sensors can be installed
- Meter can be updated with additional sensors, allowing for measurement of different parameters*
- Inputs for PC and flash drive

User Interface

- Keys 1 through to 7 support selection of number of parameters to be displayed at one time
- Data graphing



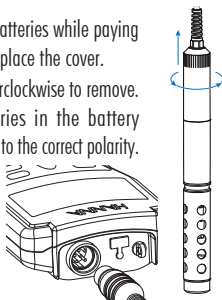
Measurement Flexibility

- Measured data displayed simultaneously for all enabled parameters

* Consult the manual for full list of compatible pH, ISE, and conductivity sensors

Getting Started

- With the meter off, remove the four screws on the back to open the battery compartment. Insert the four supplied 1.5V AA batteries while paying attention to correct polarity, and replace the cover.
- Turn the probe battery cover counterclockwise to remove. Insert four new 1.5V AA batteries in the battery compartment while paying attention to the correct polarity. Screw the cover clockwise until flush with the probe body.
- Connect the probe to the connector. Align the pins and key then push the plug into the socket.
- Wrap the strap around probe cable and thread through the looped end.
- Complete probe and sensor preparation, hydration, and calibration before measurement.



Probe and Sensor Preparation

Remove the protective shield from the probe and set aside.

pH Sensor, pH/ORP Combination Sensor

- Remove the sensor protective shield.
- If the bulb and/or junction are dry, soak the electrode in [HI70300](#) Storage solution for at least 30 minutes.
- Rinse the sensor in flowing water then clean by soaking it for 1 minute in [HI70670](#) Cleaning solution for mineral deposits or [HI70671](#) Cleaning and disinfection solution.
- Soak the sensor in [HI70300](#) Storage solution for 30 min. before calibrating.

DO Sensor

The DO sensor is shipped dry.

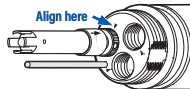
- Remove the red and black shipping cap.
- Insert the supplied O-ring into the membrane cap.
- Rinse the membrane with [HI7042S](#) Dissolved Oxygen electrolyte solution.
- Fill the cap with fresh electrolyte.
Gently tap to dislodge any air bubbles.
Do not touch the membrane with your fingers or tap it directly!
- With the sensor facing downward, screw the membrane cap counterclockwise until it is fully secured.
Some electrolyte may overflow.
- Rinse the sensor with deionized water.
- Ensure there are no bubbles or debris between the membrane and the sensor body.

EC Sensor

The EC sensor does not need to be hydrated before use. Use the small brush to clean trapped debris before use. Reinstall the sensors if they have been removed.

Sensor Reinstallation

- Identify the "Align here ⇔" signage on the sensor body and correct sensor socket.
 - Align the sensor such that the directional arrow "⇔" points directly to the designated socket.
- Insert the pH/ORP sensor into the red-coded socket (▼).
Insert the DO sensor into the white-coded socket (▼).
Insert the EC sensor into the blue-coded socket (▼).
- Push the sensor(s) in, taking care not to rotate the sensor(s).
 - Hand tighten the locking threads.



Note: Rotating the sensor at this stage might damage the connector pins.

Hydration

- Remove the shipping cap from the pH/ORP sensor.
- Place the probe with sensors under a stream of water to rinse salt crystals from sensors.
- Fill calibration beaker partially full of tap water.
Do not use deionized or distilled water.
- Screw calibration beaker onto the probe.
- Support probe in vertical position.
- Allow the sensors to soak in water for a minimum of 30 minutes (or longer) before attempting calibration.

Select Operating Language

- Power the meter then press ESC key to exit Tutorial mode.
- Go to Menu then System Setup to select the operating language.

Brief Operational Overview

Menu	key » calibration, system and parameter setup, GPS connectivity
Log	key » start logging, log recall
Measure	key » view measurement screen (with probe connected)
Param.	key » open parameters menu (with probe connected)

Calibration

Sensors must be calibrated before taking measurements.

- Power the meter then press ESC followed by **Menu**.
- Select **Calibration**.
- Use the on-board Tutorial and/or **Help** key to guide you through the calibration procedures.

HI76983948 Pressure Box Functionality

- Connect the probe to the meter and start automatic logging.
- Disconnect the probe.
- Align the pins and key then push the pressure box into the probe connector.
Note: When not connected to the meter or to the pressure box, keep probe connector protected!
- Continue logging.
Note: During logging, pressure box should not be submerged.
- When ready, to download the logs:
» Disconnect the pressure box.
» Connect the probe back to the meter and download the files as .csv.

