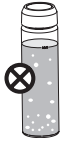
Tips for an Accurate Measurement

- It is important that the sample does not contain any debris.
- Whenever the cuvette is placed into the measurement cell, it must be dry outside, and completely free of fingerprints, oil and dirt. Wipe it thoroughly with HI731318 or a lint-free cloth prior to insertion.
- Shaking the cuvette can generate bubbles, causing higher readings. To obtain accurate measurements, remove such bubbles by swirling or by gently tapping the cuvette.
- Do not let the reacted sample stand for too long after reagent is added, as accuracy will be affected.
- After the reading it is important to immediately discard the sample, otherwise the glass might become permanently stained.



Battery Management

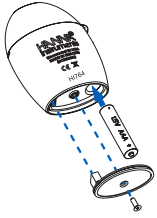
To save the battery, the instrument shuts down after 2 minutes of non-use.

One fresh battery lasts for a minimum of 5000 measurements. When the battery is dead the instrument will display "**bAd**" then "**bAt**" for 1 second and then turns off.

To restart the instrument, the battery must be replaced with a new one.

To replace the instrument's battery:

- Turn the instrument off by holding the button until the meter shuts off.
- Turn the instrument upside down and remove the battery cover with a screwdriver.



- Remove the battery from its location and replace it with a new one, inserting the negative end first.
- Insert the battery cover and replace the screw with a screwdriver.

Recommendations for Users

Before using Hanna Instruments products, make sure that they are entirely suitable for your specific application and for the environment in which they are used. Operation of these instruments may cause unacceptable interferences to other electronic equipment, thus requiring the operator to take all necessary steps to correct such interferences. Any variation introduced by the user to the supplied equipment may degrade the instrument's EMC performance. To avoid damages or burns, do not put the instrument in microwave oven. For yours and the instrument safety do not use or store the instrument in hazardous environments.

Accessories

Reagent Sets	
HI764-25	Reagents for 25 Nitrite Ultra Low Range tests
Other Accessories	
HI764-11	Nitrite ULR Certified Standard Kit
HI731315	Glass Cuvettes and Caps for Checker® HC Colorimeters (2 pcs.)
HI731318	Cloth for wiping cuvettes (4 pcs.)
HI731353	Cuvette Seal Cap for Checker® HC Colorimeters (4 pcs.)
HI740028P	1.5V AAA batteries (12 pcs.)
HI93703-50	Cuvette cleaning solution (230 mL)

Warranty

HI764 is warranted for a period of one year after date of purchase against defects in workmanship and materials when used for their intended purpose and maintained according to instructions. This warranty is limited to repair or replacement free of charge. Damage due to accidents, misuse, tampering or lack of prescribed maintenance is not covered. If service is required, contact your local Hanna Instruments Office. If under warranty, report the model number, date of purchase, serial number and the nature of the problem. If the repair is not covered by the warranty, you will be notified of the charges incurred. If the instrument is to be returned to Hanna Instruments, first obtain a Return Goods Authorization number from the Technical Service department and then send it with shipping costs prepaid. When shipping any instrument, make sure it is properly packed for complete protection.

IST764 05/18

INSTRUCTION MANUAL

HI764

Nitrite Ultra Low Range

HANNA® instruments

Thank You

Thank you for choosing a Hanna Instruments product. Please read this instruction manual carefully before using the instrument.
For more information about Hanna Instruments and our products, visit www.hannainst.com.
For technical support, contact your local Hanna Instruments Office or e-mail us at tech@hannainst.com.
Find your local Hanna Instruments Office on www.hannainst.com.

Preliminary Examination

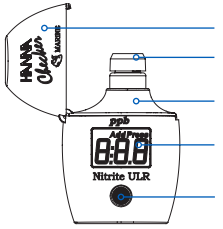
Please examine this product carefully. Make sure that the instrument is not damaged. If any damage occurred during shipment, please contact your local Hanna Instruments Office. Each HI764 meter is supplied complete with:

- Sample Cuvettes and Caps (2 pcs.)
- Reagents for 6 tests
- 1.5V AAA Battery (1 pc.)
- Instruction Manual and Quick Reference Guide

Specifications

Range	0 to 200 ppb
Resolution	1 ppb
Accuracy	±10 ppb ±4% of reading @25 °C/77 °F
Light Source	Light Emitting Diode @525 nm
Light Detector	Silicon Photocell
Method	Adaptation of the EPA Diazotization method 354.1. The reaction between nitrite and the reagent causes a pink tint in the sample.
Environment	0 to 50 °C (32 to 122 °F); max 95% RH non-condesing
Battery Type	1.5V AAA (1 pc.)
Auto-Shut off	After 2 minutes of non-use
Dimensions	86.0 x 61.0 x 37.5 mm (3.4 x 2.4 x 1.5")
Weight	52 g (1.84 oz.)

Functional Description



Errors and Warnings

Light High: There is too much light to perform a measurement. Please check the preparation of the zero cuvette.

Light Low: There is not enough light to perform a measurement. Please check the preparation of the zero cuvette.

Inverted Cuvettes: The sample and the zero cuvette are inverted.

Under Range: A blinking **"0"** indicates that the sample absorbs less light than the zero reference. Check the procedure and make sure you use the same cuvette for reference (zero) and measurement.

Over Range: A flashing value of the maximum concentration indicates the reading is over range. Dilute the sample and re-run the test.

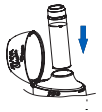
Battery Low: The battery must be replaced soon.

Dead Battery: This indicates that the battery is dead and must be replaced. Once this indication is displayed, normal operation of the instrument will be interrupted. Change the battery and restart the meter.

Measurement Procedure

- Turn the meter on by pressing the button. All segments will be displayed. When the display shows **"Add"**, **"C.1"** with **"Press"** blinking, the meter is ready.

- Fill the cuvette with 10 mL of unreacted sample and replace the cap. Place the cuvette into the meter and close the meter's cap.



- Press the button. When the display shows **"Add"**, **"C.2"** with **"Press"** blinking the meter is zeroed.

- Remove the cuvette from the meter and unscrew the cap. Add the content of one packet of HI764-25 reagent. Replace the cap and shake gently for about 15 seconds. Place the cuvette back into the meter.

- Press and hold the button until the timer is displayed on the LCD (the display will show the countdown prior to the measurement).

- The instrument displays the concentration of nitrogen-nitrite (NO_2^--N) in ppb. The meter automatically turns off after 2 minutes.

- To convert the NO_2^--N concentration to the nitrite ion concentration (NO_2^-), multiply the reading by factor of 3.29.

Hanna Instruments reserves the right to modify the design, construction or appearance of its products without advance notice.