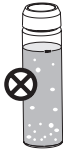
Tips for an Accurate Measurement



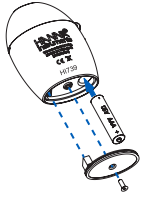


- Ensure the sample does not contain any debris.
- Whenever the cuvette is placed into the checker, it must be dry outside and free of fingerprints, oil and dirt.
- Wipe the cuvette thoroughly with HI731318 microfiber cleaning cloth or a lint-free cloth prior to insertion.
- Shaking the cuvette can generate 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 too long after reagent has been added, as accuracy will be affected.
- Discard the sample immediately after the reading has been taken or the glass might become permanently stained.

Battery Replacement

To save the battery, the checker shuts down after 10 minutes of non-use and 2 minutes after reading.
A fresh battery lasts for a minimum of 5000 measurements. When the battery is drained, the instrument displays "bAd" then "bAt", and turns off.
To replace the battery, follow the next steps:

1. Press and hold the ON/OFF button to turn the checker off.
2. Turn the instrument upside down and use a screwdriver to unfasten the screw and remove the battery cover.



3. Remove the old battery, replace it with a new 1.5V AAA battery, inserting the negative end first.
4. Replace the battery cover, fasten and tighten the screw.

Accessories

Reagent Sets	
HI739-26	Reagents for 30 Fluoride High Range tests
Other Accessories	
HI739-11	Fluoride High Range certified standard kit
HI731225	Cuvette black cap for Checker® HC colorimeters (4 pcs.)
HI731318	Cloth for wiping cuvettes (4 pcs.)
HI731321	Glass cuvette and seal cap for Checker® HC colorimeters (4 pcs.)
HI731353	Cuvette seal cap for Checker® HC colorimeters (4 pcs.)
HI740028P	1.5V AAA battery set (12 pcs.)
HI740142P	1 mL graduated syringe (10 pcs.)
HI740144P	Pipette tip for syringes (10 pcs.)
HI93703-50	Cuvette cleaning solution, 230 mL

Certification

All Hanna Instruments conform to the **CE European Directives.**

Disposal of Electrical & Electronic Equipment. The product should not be treated as household waste. Instead hand it over to the appropriate collection point for the recycling of electrical and electronic equipment which will conserve natural resources.

Disposal of waste batteries. This product contains batteries, do not dispose of them with other household waste. Hand them over to the appropriate collection point for recycling.

Ensuring proper product and battery disposal prevents potential negative consequences for the environment and human health. For more information, contact your city, your local household waste disposal service, the place of purchase or go to www.hannainst.com.

Recommendations for Users

Before using this product, make sure it is entirely suitable for your specific application and for the environment in which it is used. Any variation introduced by the user to the supplied equipment may degrade the checker's performance. For your and the checker's safety do not use or store it in hazardous environments.

Warranty

HI739 Checker®HC is warranted for a period of one year against defects in workmanship and materials when used for its 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 checker is to be returned to Hanna Instruments, first obtain a Returned Goods Authorization (RGA) number from the Technical Service department and then send it with shipping costs prepaid. When shipping any product, make sure it is properly packaged for complete protection.

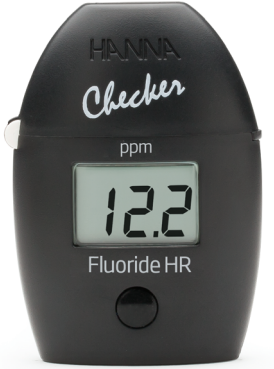
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IST739 07/20

INSTRUCTION MANUAL

HI739
Fluoride High Range



HANNA® instruments

Dear Customer,

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

Preliminary Examination

Remove the Checker®HC handheld colorimeter and accessories from the packing material and examine it carefully. If you require any further information, please contact Hanna Instruments technical support team.

Each HI739 is delivered in a case with custom insert and is supplied with:

- Sample cuvette and cap (2 pcs.)
- Fluoride High Range reagent starter kit (reagents for 15 tests)
- 1 mL syringe with tip (2 pcs.)
- Plastic pipette (1 pc.)
- 1.5V AAA Alkaline battery (1 pc.)
- Instruction manual

Note: *Save all packing material until you are sure that the Checker®HC handheld colorimeter works correctly. Any damaged or defective item must be returned in its original packing material with the supplied accessories.*

General Description & Intended Use

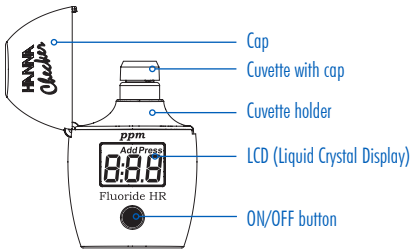
HI739 Fluoride High Range handheld checker is designed to accurately determine fluoride levels in drinking water.

HI739 features a single-button operation system and is easy to use.
The large LCD is easy to read and the auto shut-off feature assures the battery will not be drained.

Specifications

Range	0.0 to 20.0 ppm (as F^-)
Resolution	0.1 ppm
Accuracy	±0.5 ppm ±5% of reading @25 °C (77 °F)
Light source	Light Emitting Diode @ 575 nm
Light detector	Silicon photocell
Method	Adaptation of the Standard Methods for the Examination of Water and Wastewater, 18th Edition, SPADNS Method
Environment	0 to 50 °C (32 to 122 °F); max. 95% RH non-condensing
Battery type	1.5V AAA Alkaline
Auto shut-off	After 10 minutes of non-use and 2 minutes after reading
Dimensions	86.0 x 61.0 x 37.5 mm (3.4 x 2.4 x 1.5")
Weight	64 g (2.3 oz)

Functional Description & LCD Display

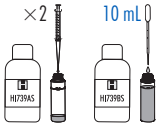


Measurement Procedure

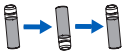




- Press the ON/OFF button to turn the checker on. All segments will be displayed for a few seconds, followed by "Add", "C.1" with "Press" blinking.



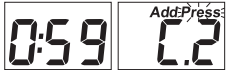
- Use the supplied syringe and add 2 mL (1 mL twice) of HI739AS Fluoride High Range reagent to the cuvette. Use the pipette and fill the cuvette up to the mark with HI739BS Fluoride High Range reagent.
- Replace the cap and invert several times to mix.



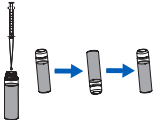
- Insert the cuvette into the checker and close the cap.



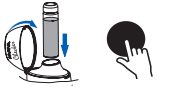
- Press and hold the ON/OFF button. The display will show the countdown prior to the measurement. Alternatively, wait 1 minute and press the button. When the display shows "Add", "C.2" with "Press" blinking, the checker is zeroed.



- Remove the cuvette and unscrew the cap. Use the unused syringe and add exactly 1 mL of sample. Replace the cap and invert several times to mix.



- Insert the cuvette into the checker and close the cap. Press and hold the ON/OFF button. The display will show the countdown prior to the measurement. Alternatively, wait 1 minute and press the button.



- When the timer ends the checker will perform the reading. The instrument displays the fluoride concentration in ppm. The checker automatically turns off 2 minutes after reading.



Errors & Warnings

The checker shows clear warning messages when erroneous conditions appear and when measured values are outside the expected range. The information below provides an explanation of the errors and warnings, and the recommended action to be taken.

Light High: There is an excess amount of ambient light reaching the detector. 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 cuvettes are inverted. Swap the cuvettes and repeat the measurement.



Under Range: A blinking "0.0" indicates that the sample absorbs less light than the zero reference. Check the measurement procedure and make sure to use the same cuvette for reference (zero) and measurement.



Over Range: Maximum concentration value displayed blinking indicates the measured value is outside the limits of the method. Verify that the sample does not contain any debris. Dilute the sample and repeat the measurement.



Battery Low: Battery level is too low for the checker to function properly. Replace the battery with a new one.



Drained Battery: The battery is drained and must be replaced. Replace the battery with a new one and restart the checker.

