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You can read the recommendations in the user guide, the technical guide or the installation guide for HANNA INSTRUMENTS HI 96737. You'll find the answers to all your questions on the HANNA INSTRUMENTS HI 96737 in the user manual (information, specifications, safety advice, size, accessories, etc.). Detailed instructions for use are in the User's Guide.

User manual HANNA INSTRUMENTS HI 96737 User guide HANNA INSTRUMENTS HI 96737 Operating instructions HANNA INSTRUMENTS HI 96737 Instructions for use HANNA INSTRUMENTS HI 96737 Instruction manual HANNA INSTRUMENTS HI 96737

INSTRUCTION MANUAL
HI 96737

Silver ISM

Preliminary examination:

Please examine this product carefully. Make sure that the instrument is not damaged. If any damage is noted during shipment, please notify your dealer.

Tools: HI 96737 has a Selection Menu to simplify sample work.

- Test Sample Container and Cap
- 90 Battery
- Instruction Manual

Note: Some of packing material will give you an idea that the instrument will be correctly. Any damage that must be returned in its original packaging.

For more details about spare parts and accessories see "Accessories".

Technical specifications:	
Range	0.000 to 1.000 mg/L
Resolution	0.001 mg/L
Accuracy	±0.003 mg/L or 10% of reading (20-25°C)
Typical EMC Dev.	±0.001 mg/L
Light Source	Deuterium Lamp
Light Detector	Silicon Photocell with narrow band interference filter (325 nm)
Method	Adaptation of the 1-25 photometric 2-spectrophotometric method. The reaction between silver and cyanide occurs on sample addition to the sample.
Environment	0 to 30°C (32 to 122°F) max 90% RH (not condensing)
Battery Type	1 x 9 V
Auto-Start off	After 15 min of inactivity in measurement mode, after 1 hour of inactivity in calibration mode, with last reading available.
Dimensions	132 x 154 x 48 mm (5.1 x 6.1 x 1.9")
Weight	340 g (12.7 oz.)

HANNA INSTRUMENTS
www.hanna-test.com

Functional description:

1. **ON/OFF** key: press to enter ON/OFF mode. In calibration mode press to exit the test and back.
2. **CAL CHECK** key: press to perform the calibration of the water, or press and hold for three seconds to enter calibration mode.
3. **ZERO/CFM** key: press to zero the meter prior to measurement, to confirm initial values or to confirm before calibration routine.
4. **READ/TIME** key: In measurement mode, press to make a measurement, or press and hold for three seconds to start a pre-programmed, automatic flow to measurement. In ON/OFF mode press to view the test result.
5. **ON/OFF** key: to turn the meter on and off.
6. **Unit/Control Display (LCD)**
7. **Control display indicator**
8. **Control display**

DISPLAY ELEMENTS DESCRIPTION:

1. The measuring value (Flow, weight, density), appears during different phases of use or reading measurement.
2. Error messages and warnings.
3. The battery icon indicates the charge state of the battery.
4. The highlight appears when an entered check is in progress.
5. Status messages.
6. The dimension appears when the reaction time is waiting.
7. The mark, size and data icons appear when data is displayed.
8. Four digit main display.
9. Auxiliary unit.
10. Low light intensity display.

Errors and warnings:

ON ZERO READ:

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

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

NO LIGHT: The instrument cannot detect the light beam. Please check that the sample does not contain any debris.

NO SAMPLE READ:

Insufficient sample: The sample and the zero sample are inverted.

ZERO: A zero reading was not taken. Follow the instructions of the measurement procedure for reading the meter.

Stable sample: A stability "STAB" indicator that the sample stability has light after the zero solution. Check the preparation and make sure you use the same sample for subsequent (zero) and measurement.

Over Range: A flashing value of the maximum concentration indicates an over-range condition. The concentration of the sample is beyond the programmed range, dilute the sample and re-use the test.

UNIT/CONTROL DISPLAY:

Standard Low: The standard reading is less than expected.

Standard High: The standard reading is higher than expected.

OTHER ERRORS AND WARNINGS:

Cap error: Appears when entered light values in the analysis cell. Assure that the sample cap is present.

Measurement procedure:

1. Turn the meter on by pressing **ON/OFF**.
2. The LCD screen performs zero test between 20-25 °C.
3. When the banner reads "Ready" and the LCD displays "Auto", the meter is ready. The display "ZERO" indicates that the instrument reads the zero level.
4. Fill two prepared beakers with 25 ml of sample.
5. Add 1.0 ml of HI 93237-0 reagent to one beaker (the blank) and add gently to mix.
6. Add 1.0 ml of HI 93237-0 reagent to the other beaker (the sample) and gently to mix.
7. Press the **READ/TIME** key for three seconds and the display will show the constant value. The message "STAB" indicates the end of constant period, automatically wait for 2 minutes. The instrument is ready for a flow.
8. Add 1.0 ml of HI 93237-0 reagent to each beaker, and add equal the step 6.
9. Add 1.0 ml of HI 93237-0 reagent to each beaker, and add equal the step 6.
10. Fill one beaker up to the 10 ml mark with blank.
11. Press the **READ/TIME** key in the sample holder and ensure that the mark on the cap is positioned exactly over the glass.
12. Press **ZERO/CFM** and the lamp, counts and banner icon will appear on the display, depending on the measurement phase. After a few seconds the display will show "ERR". The meter is now ready and ready for measurement. Remove the sample.
13. Fill in equal counts up to the 10 ml mark with the next sample.
14. Press the **READ/TIME** key in the blank and ensure that the mark on the cap is positioned exactly over the glass.
15. Press **READ/TIME** in all cases the flow counts and density icons will appear on the display, depending on the



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Manual abstract:

This manual will provide you with the necessary information for the correct use of the instrument. Please read it carefully before using the meter. If you need additional technical information, do not hesitate to e-mail us at tech@hannainst.com. Functional description: Errors and warnings: ON ZERO READING:

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. No Light: The instrument cannot adjust the light level. Please check that the sample does not contain any debris.

ON SAMPLE READING: Inverted cuvettes: The sample and the zero cuvette are inverted. 3 Zero: A zero reading was not taken. Follow the instructions of the measurement procedure for zeroing the meter. Under range: A blinking "0.000" 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 an over range condition. The concentration of the sample is beyond the programmed range: dilute the sample and re-run the test. DURING CALIBRATION PROCEDURE: Standard Low: The standard reading is less than expected. 10 Cooling lamp: The instrument waits for the lamp to cool down.

@@@Make sure that the instrument is not damaged. If any damage occurred during shipment, please notify your Dealer. @@@Any defective item must be returned in its original packing. @@@@Change the battery and restart the meter. Measurement procedure: Measurement Technical specifications: Range Resolution Accuracy Typical EMC Dev. Light Source Light Detector Method 0.000 to 1.000 mg/L 0.001 mg/L ± 0.005 mg/L $\pm 10\%$ of reading @25°C $\pm 0.$

001 mg/L Tungsten Lamp Silicon Photocell with narrow band interference filter @ 575 nm Adaptation of the 1-(2-pyridylazo)-2-naphthol PAN method. The reaction between silver and reagents causes an orange tint in the sample. 0 to 50°C (32 to 122°F); max 95% RH non-condensing 1 x 9 volt After 10' of non-use in measurement mode; after 1 hour of non-use in calibration mode; with last reading reminder. 192 x 104 x 69 mm (7.6 x 4.1 x 2.7 ") 360 g (12.7 oz.). 1. GLP/ key: press to enter GLP mode. In calibration mode press to edit the date and time. 2. CAL CHECK key: press to perform the validation of the meter, or press and hold for three seconds to enter calibration mode. 3.

ZERO/CFM key: press to zero the meter prior to measurement, to confirm edited values or to confirm factory calibration restore. 4. READ/ /TIMER key: In measurement mode, press to make a measurement, or press and hold for three seconds to start a pre-programmed countdown prior to measurement. In GLP mode press to view the next screen. 5.

ON/OFF key: to turn the meter on and off. 6. Liquid Crystal Display (LCD) 7. Cuvette alignment indicator 8. Cuvette holder DISPLAY ELEMENTS DESCRIPTION: 2 4 5 6 7 8 9 10 mL blank Environment Battery Type Auto-Shut off Dimensions Weight www.hannainst.com 1. The measuring scheme (lamp, cuvette, detector), appears during different phases of zero or reading measurement 2. Error messages and warnings 3. The battery icon indicates the charge state of the battery 4.

The hourglass appears when an internal check is in progress 5. Status messages 6. The chronometer appears when the reaction timer is running 7. The month, day and date icons appear when a date is displayed 8. Four digit main display 9. Measuring units 10. Four digit secondary display Standard High: The standard reading is higher than expected. 11 OTHER ERRORS AND WARNINGS: Cap error: Appears when external light enters in the analysis cell. Assure that the cuvette cap is present. 12 10 mL sample 13 1· Turn the meter on by pressing ON/OFF.

Note: For best result perform your tests between 20-24 °C. @@@The blinking "ZERO" indicates that the instrument needs to be zeroed first. 3· Fill two graduated beakers with 25 mL of sample. 4· Add 1.0 mL of HI 93737A-0 reagent to one beaker (the blank) and swirl gently to mix.

@@@Swirl gently to mix. @@@@The instrument is used like a timer. @@@@9· Fill one cuvette up to the 10 mL mark with blank. @@@@After a few seconds the display will show "-0.0-".

The meter is now zeroed and ready for measurement. Remove the cuvette. @@@@14· Press READ/ /TIMER. @@@Note: A temperature above 30 °C may cause turbidity. @@@@In both cases the year number is blinking, ready for date input. 12· Press GLP/ to edit the desired year (2009-2099). @@@@Now the display will show the month blinking. Calibration 14· Press GLP/ to edit the desired month (01-12). @@@@1· Press GLP/ to enter GLP mode. @@@1· Turn the meter on by pressing ON/OFF.

@@@3· Press and hold CAL CHECK for three seconds to enter calibration mode. The display will show "CAL" during calibration procedure. The blinking "ZERO" asks for instrument zeroing. 4· Place the CAL CHECK™ Standard HI 96737-11 Cuvette A into the cuvette holder and ensure that the notch on the cap is positioned securely into the groove. 4 3 or 2· Press READ/ /TIMER to enter in the factory calibration restore screen. The instrument asks for confirmation of user calibration delete. 3-4 3· Press ZERO/CFM to restore the factory 3-4 calibration or press GLP/ again to abort factory calibration restore. Warranty HI 96737 is warranted for two years against defects in workmanship and materials when used for its intended purpose and maintained according to the instructions. This warranty is limited to repair or replacement free of charge. Damages due to accident, misuse, tampering or lack of prescribed maintenance are not covered.

If service is required, contact your dealer. If under warranty, report the model number, date of purchase, serial number and the nature of the failure. 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 Returned Goods Authorization Number from the Customer Service Department and then send it with shipment costs prepaid. When shipping any instrument, make sure it is properly packaged for complete protection.

To validate your warranty, fill out and return the enclosed warranty card within 14 days from the date of purchase. Recommendations for Users Before using these 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 equipments, this requiring the operator to take all necessary steps to correct 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.



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For yours and the instrument safety do not use or store the instrument in hazardous environments. 14-15 or 4. The instrument briefly indicates "donE" upon restoration of factory calibration prior returning to measurement mode. Battery management To save the battery, the instrument shuts down after 10 minutes of non-use in measurement mode and after 1 hour of non-use in calibration mode. @@@@The instrument displays a battery indicator with three levels as follows: · 3 lines for 100 % capacity · 2 lines for 66 % capacity · 1 line for 33 % capacity · Battery icon blinking if the capacity is under 10 %. If the battery is empty and accurate measurements can't be taken any more, the instrument shows "dEAd bAtt" and turns off. To restart the instrument, the battery must be replaced with a fresh one. To replace the instrument's battery, follow the steps: · Turn the instrument off by pressing ON/OFF. · Turn the instrument upside down and remove the battery cover by turning it counterclockwise. Validation and Calibration procedures Warning: do not validate or calibrate the instrument with standard solutions other than the Hanna CAL CHECKTM Standards, otherwise erroneous results will be obtained. For accurate validation and calib.



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