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Environmental Solutions

SIMTECH

YSI 9800 Photometer

FLEXIBLE PHOTOMETER FOR THE LAB OR FIELD

YSI

a **xylem** brand

YSI 9800 Photometer

The information contained in this guide is subject to change without notice.

Effort has been made to make the information in this guide complete, accurate, and current.

The manufacturer shall not be held responsible for errors or omissions in this manual.

*Consult **YSI.com** for the most up-to-date version of this manual.*

Thank you for purchasing a YSI 9800 Photometer. This manual covers setup, operation, and functionality. You can find additional information at YSI.com/9800 including supporting documents and printable test instructions as well as firmware updates.

Intended Use

The YSI 9800 utilizes a unique measurement and data management platform for water testing. It is used for testing drinking water, wastewater, process water, environmental waters, and swimming pools / spa water. It is employed in industries such as food and beverage, utility companies, and the humanitarian sectors amongst many other industrial, scientific, education, health, and manufacturing applications.

The data is used in reports for audits, records, quality control, process control, and trend analysis.

The YSI 9800 offers:

- Reliable, high-quality results with less risk of user error

- Traceable data record of 10,000+ results

- Data enrichment with application and test information

- IP-67 certified with waterproof USB-C port

Technical Support

Telephone: 800 897 4151 (USA)

+1 937 767 7241 (Globally) Monday through Friday, 8:00 AM to 5:00 ET

Fax: +1 937 767 9353 (orders)

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YSI.com

Safety Information

Please read this entire manual before unpacking, setting up or operating this equipment. If this instrument is used in ways not specified, the protection it provides, and its accuracy may be impaired. Avoid replacing batteries in wet or humidity condensing locations. Please read and follow all the safety information supplied with your YSI reagents.

The manufacturer is not responsible for any damages due to misapplication or misuse of this product including, without limitation, direct, incidental and consequential damages, and disclaims such damages to the full extent permitted under applicable law. The user is solely responsible to identify critical application risks and install appropriate mechanisms to protect processes during a possible equipment malfunction.

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1 – Getting Started

1.1 – Instrument Layout

On/Off

Touch Screen

Cell Holder/Optical Cell

Battery Cover

Waterproof Data and Power Connection USB C
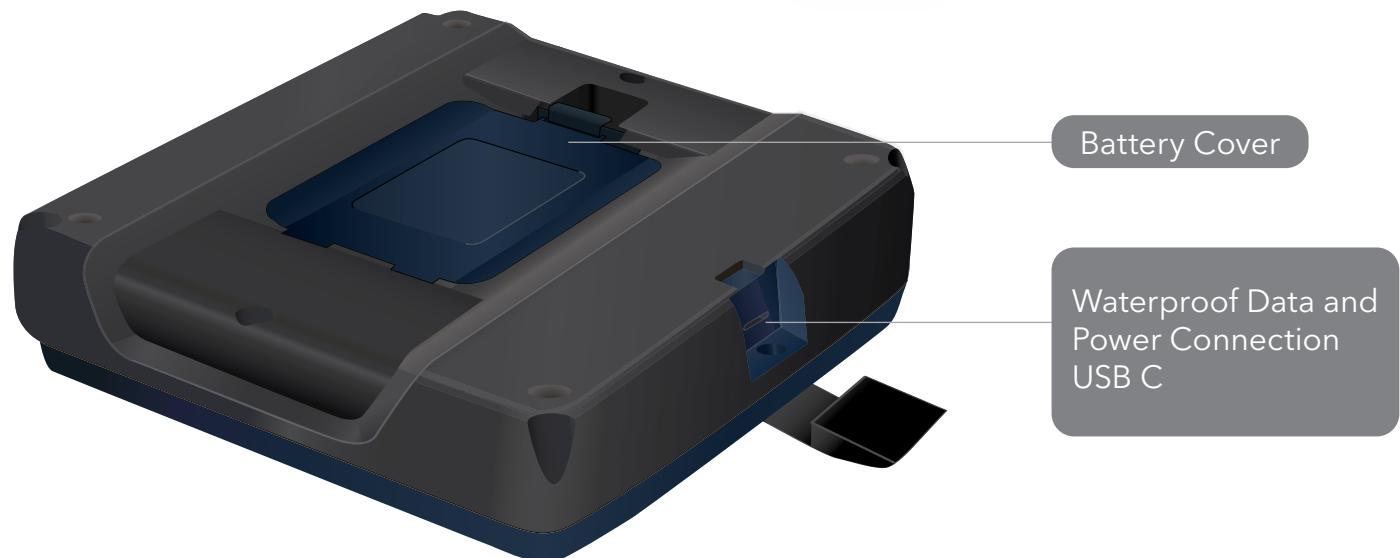
1.2 – The Home Screen

After powering up, the home screen appears and provides access to all functions.

- Select from a list of all Tests
- Select from a list of favorite Tests

- The 9800 can be verified with a set of standards

- View logged data
- Filter to view subset of logged data
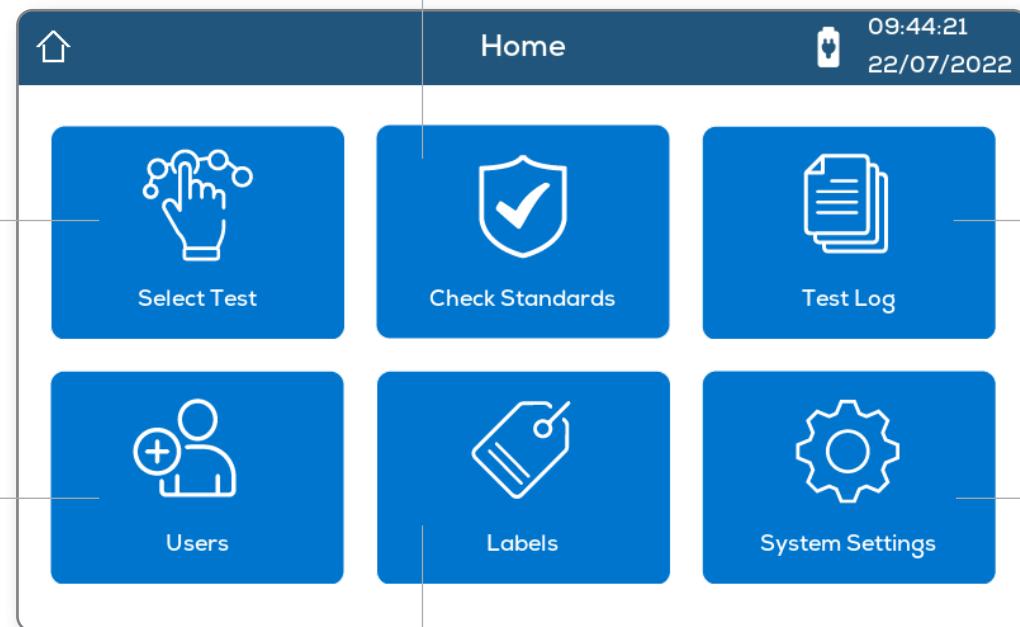
- Add up to 50 user names
- Data can be tagged with a specific user

- Use labels to tag data for later filtering

- Set up and customize your 9800 Photometer

2 – How to Select and Perform a Test

2.1 – Basic Principles of Photometric Tests

Photometric testing, also called colorimetry, involves adding reagents (e.g. tablets, powders, or liquids) to a water sample.

The reagents will be designed to react with a particular chemical of interest in the sample and form a colored solution. By measuring the strength of that color, the concentration of the chemical can be calculated.

Once the sample has been prepared by adding reagents, the 9800 sends light of a chosen wavelength through that sample and measures the level of light that passes through. This is then compared to the light level that passes through a "Blank" sample, that has no reagents.

The 9800 converts this reduction in light transmission to a concentration.
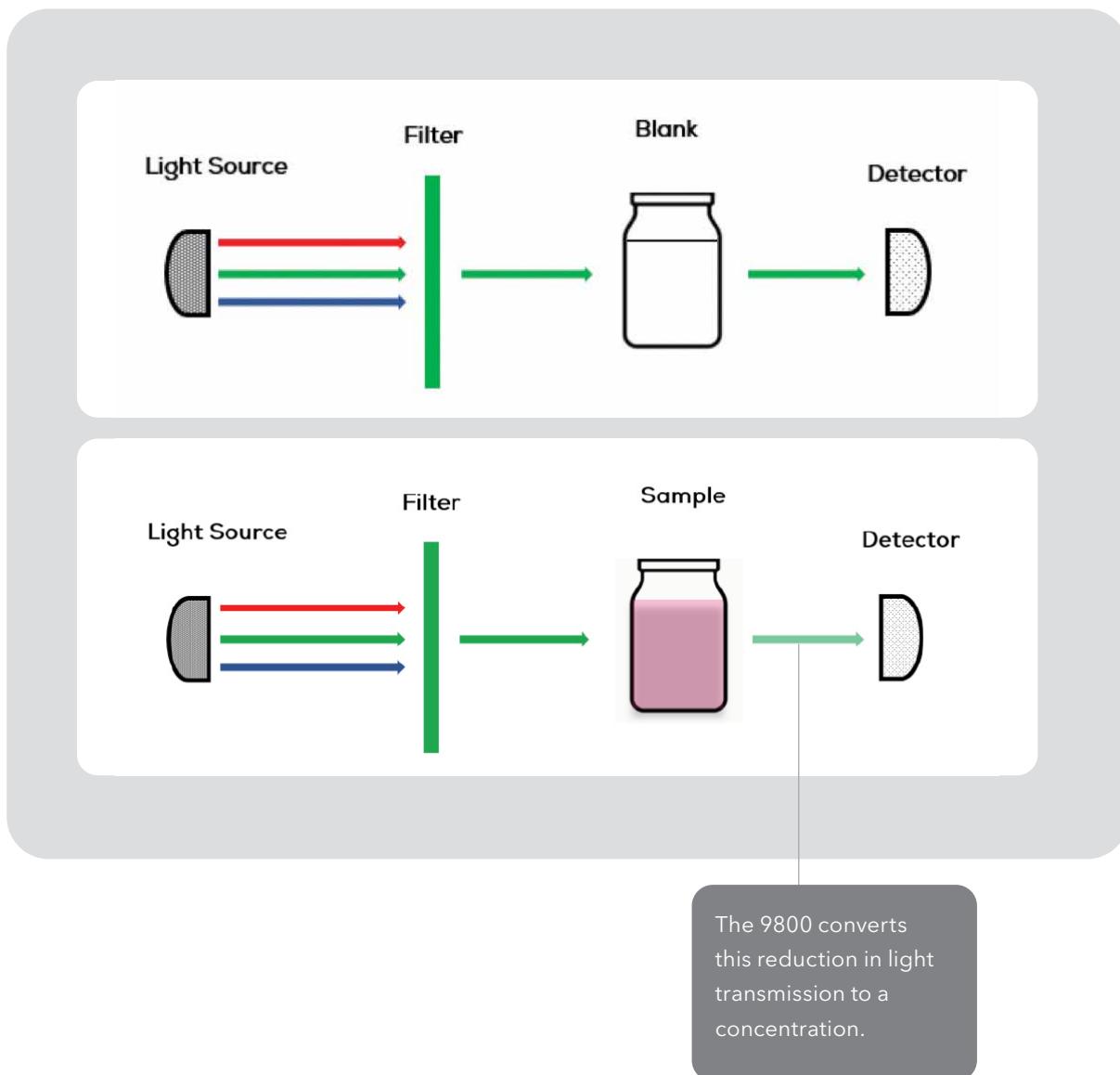
2.2 – Blanking

Blanking is the process that sets the zero value for the test. Since color development is being measured optically, blanking ensures that any pre-existing color or turbidity in the sample does not affect the final result. The "blank" tube contains a sample of the water being tested without any reagents added. It is important to use the actual sample being tested to provide a true comparison for the test results.

2.3 – Taking Test Readings

Below is an outline of the basic procedure for the majority of tests. For specific test details please refer to the specific test instructions. These are available on the instrument here.

1

To "Blank" the instrument, place a clean photometer tube containing the sample, without reagents, in the cell holder.

2

Press Blank

Copper, Free   10:56:04
                                25/10/2022

Insert blank tube &
press Blank

Label: CLICK TO ADD
User: CLICK TO ADD
No Notes. CLICK TO ADD.

Test Guide
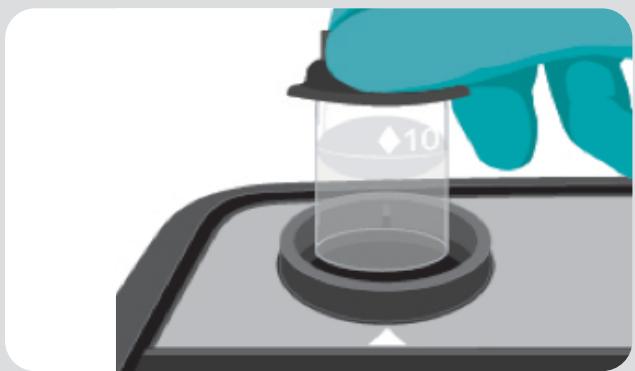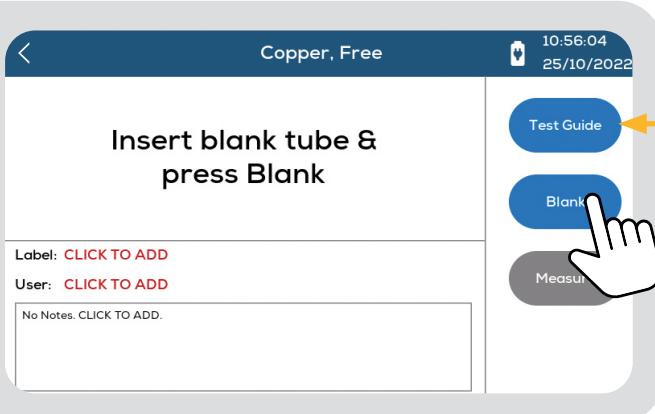
Blank

Measu

3

A progress bar will show that blanking is in progress.

Avoid moving the Blank tube during this time.

| Copper, Free | 11:27:27 25/10/2022 |

Blanking

Label: CLICK TO ADD
User: CLICK TO ADD
No Notes. CLICK TO ADD.

Test Guide
Blank
Measure
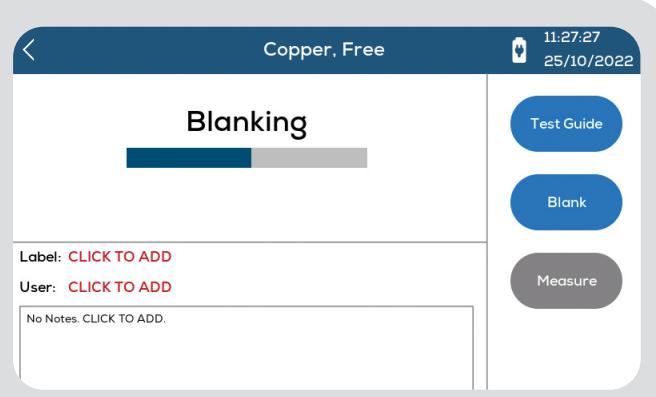
4

Instrument is successfully blanked and ready to measure the prepared sample.

| Copper, Free | 10:43:48 27/10/2022 |

Insert sample tube & press Measure

Label: CLICK TO ADD
User: CLICK TO ADD
No Notes. CLICK TO ADD.

Test Guide
Blank
Measure
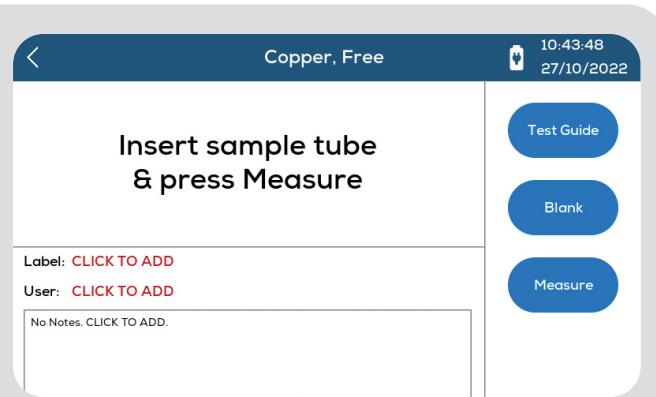
5

Prepare sample by adding required reagents. Reagents can come in tablet, liquid, or powdered form depending on the test.
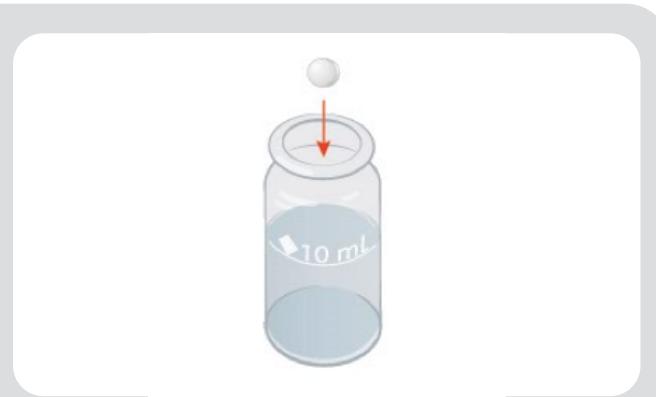
6

A color will typically develop.

Place the prepared sample tube in the cell holder.

7

Press Measure.

Copper, Free 10:43:48 27/10/2022

Insert sample tube
& press Measure

Label: CLICK TO ADD
User: CLICK TO ADD
No Notes. CLICK TO ADD.
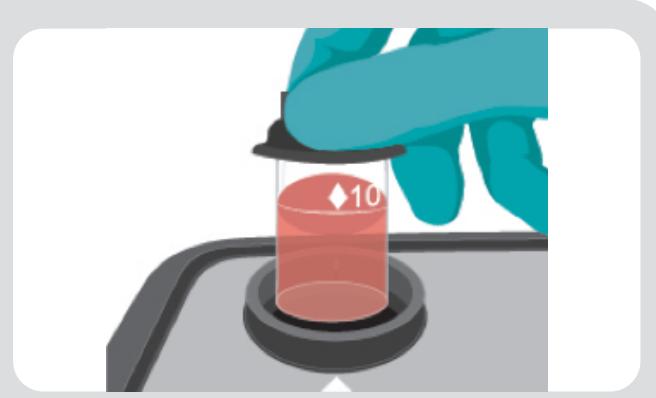
Test Guide
Blank
Measure
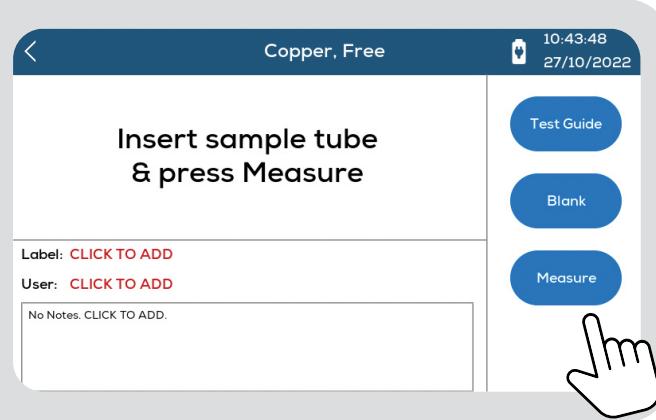
8

On some tests there will be a specified waiting time to allow color development. This is preprogrammed in for each test and the timer will start automatically. Tests not requiring a wait time will start measurement immediately.

Alkalinity P 11:02:13 25/05/2022

Pre
Press

Alkalinity P

01:58

Reset   Skip

Label: CLICK TO ADD
User: CLICK TO ADD
No Notes. CLICK TO ADD.

Test Guide
Blank
Measure
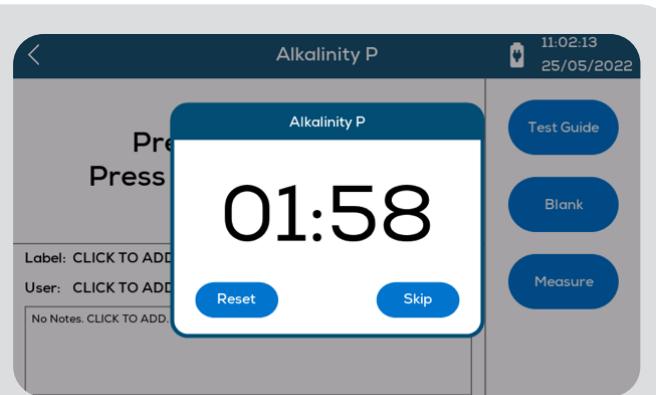
9

The result will then be displayed.

Copper, Free 16:47:42 19/05/2022

0.68 mg/L
Cu

Label: CLICK TO ADD
User: CLICK TO ADD
No Notes. CLICK TO ADD.

Test Guide
Blank
Measure
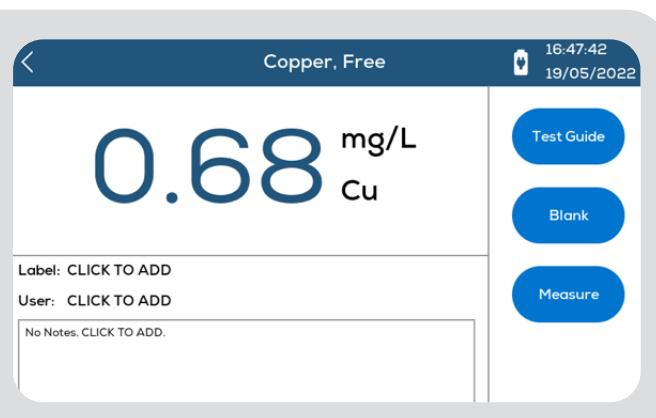
2.4 – Information Messages

During the testing process, the YSI 9800 performs checks to ensure that the test will be measured correctly. If it detects an event that would invalidate the result it will report one of the information messages below.

Message ID	Likely Cause	Suggested Action
M1 and M2	Blank is too dark.	Check and clean all glass tubes used. Repeat blanking process
	Contamination obscuring optics.	See: Keeping the Optics Clean
M3 and M4	Blank, sample tube, or NDF standard moved or removed too early.	Carefully repeat blanking and reading procedure.
M5	Tube cap is not excluding light from cell.	Check or change light cap on tube. Move instrument away from external light.
	External light entering the optical cell.	

A common cause that can trigger any of these messages to be displayed is contamination of the optical windows or stained glassware. See section below: Achieving Best Results. If messages continue to be displayed, please contact YSI Technical Support.

2.5 – Achieving Best Results

Ensure accuracy by blanking correctly

Blanking is a critical step as it sets the zero value for the test. In most case the blank tube and sample tube should be identical except for the reagents (e.g. tablets) that have been added to the sample tube.

In some tests, pre-treatment of the sample such as dilution, filtering or conditioning of seawater is recommended. In this case, it will be this pretreated sample that needs to be used in the "blank" tube. Again, this will ensure that only the color change in the specific reagents for the test parameter is measured.

Best practice when testing

Rinse equipment thoroughly with deionized water or the water being tested.
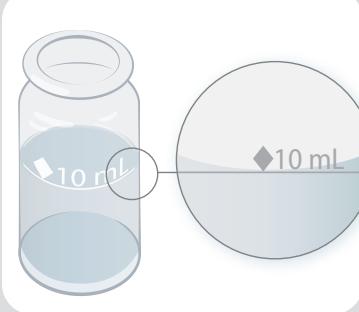
Measure volumes accurately as shown (or use a pipette or syringe).
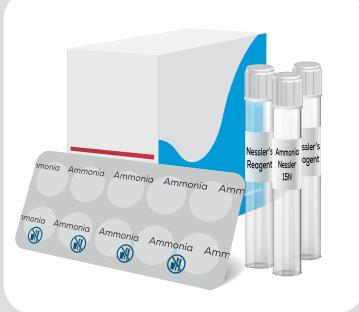
Use the correct YSI reagents and observe all safety information supplied with them.
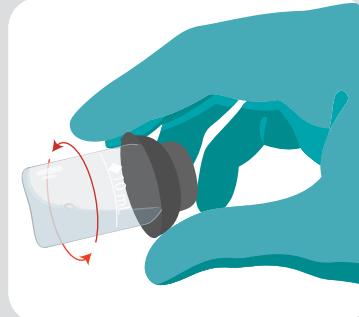
Check for bubbles and remove as shown.
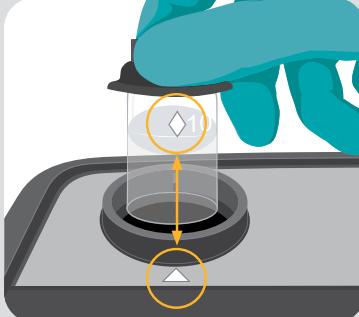
Align tubes as shown. Always use the tube cap as it excludes light from the optics.
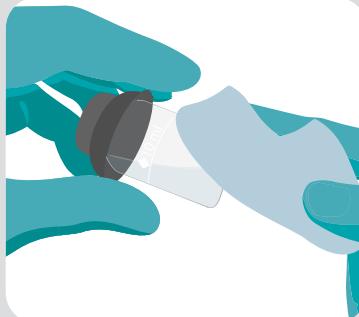
Keep instrument clean. Dry all tubes before placing in the optical cell.

2.6 – Dilutions

If the concentration in the sample is above the range of the test, the result screen will show the upper range level with a greater than sign "˃" in front of it. It will then be necessary to dilute the sample and repeat the test.

YSI's Dilution Tube is designed to make this process easy to carry out. It can be used to dilute the sample by a factor of 2, 3, 4, 5 or 10 times. If a higher dilution than this is required a 10 mL syringe can be used with the dilution tube to dilute up to 100 times.

Using the Dilution Tube

Assume you want to carry out a x2 dilution.

(This means the sample volume will be doubled by adding an equal amount of deionized water).

Follow these instructions:

1. Fill tube with sample to the x2 mark.

2. Then, top up with deionized water to the line marked 'Deionized Water' or "x1".

3. Cap the dilution tube and swirl to mix.

4. Use this diluted sample in the test in the normal manner. This includes blanking on the diluted sample.

5. Multiply the test result obtained by the dilution factor used (in this case x2).

6. The 9800 can be setup to carry out the calculation automatically and store the calculated result in the log. This requires the use of Labels.
See: Setting Pass and Fail Limits for a Test
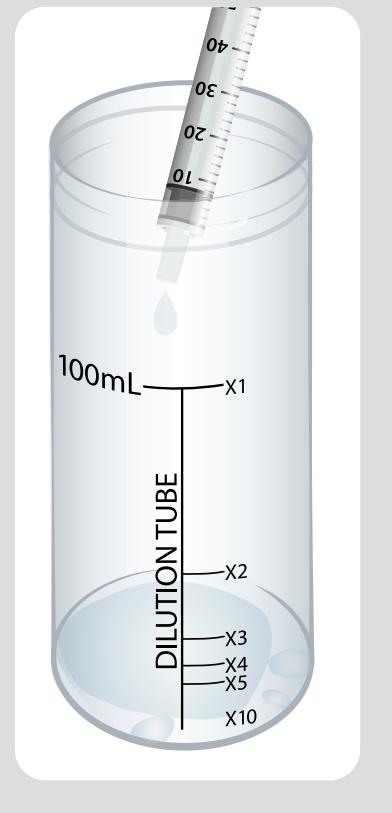
Notes:

1. Higher levels of dilution can be achieved by repeating the dilution process, then multiplying the two dilutions together.

   For example a x10 dilution, followed by a x2 dilution would result in a x20 dilution (10 x 2)

2. Dilution tubes and syringes should be rinsed thoroughly after use with deionized water.

Use of a syringe and dilution tube for dilutions of x10 and higher

This is an alternative to the method given in Note 1 above, for dilution levels above x10.

1. Decide on the degree of sample dilution required and consult the table below for the correct fill level in the syringe.

Required Dilution	Fill Syringe with Sample to this Level
x10	10 mL
x20	5 mL
x25	4 mL
x50	2 mL
x100	1 mL
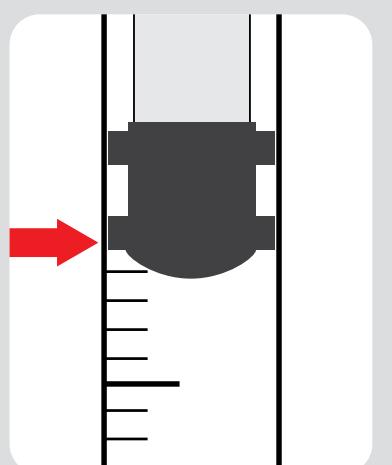
2. Place the tip of the syringe in the sample and draw some into the syringe. Adjust the syringe plunger until level corresponds to the appropriate fill level indicated in the table and illustration.

3. Expel the sample from the syringe into a clean dilution tube. Fill the tube with deionized water to the line marked 'Deionized Water' or 'x1'.

4. Replace the cap and invert several times to mix.

5. Use the diluted sample for the test in the normal manner.

6. Multiply the test result obtained by the dilution factor selected in the table.

   For example, to prepare a x50 dilution, fill syringe to 2 mL (as shown in table), expel this into dilution tube and top up with deionized water. The test result would then be multiplied by 50.

3 – Setting Pass and Fail Limits for a Test

3.1 – Why Set Pass and Fail Limits?

Whatever the application is, the YSI 9800 can be a powerful tool for managing the conditions in any water process or body of water. A system of labels allows relevant test parameters to be grouped together and pass and fail limits can be set separately for each label.

By setting limits for any test parameter, the 9800 can provide instant feedback to the operator carrying out the test as to whether the result is outside the expected or acceptable range.

This feedback on the test result appears in the results screen at the time and is recorded in the results log. Even if the limits are subsequently changed, the log result will continue to show that it was outside the acceptable range at the time of the test. Below is a typical results log.

			11:36:17
‹	Label – Fish Pond	🔋	25/07/202
000268.mrslt	›1000 FTU	Fish Pond	15:06:23 21/06/2022
000267.mrslt	0.70 mg/L NH₃	Fish Pond	15:49:56 02/06/2022
000266.mrslt	0.57 mg/L N	Fish Pond	15:43:03 02/06/2022
000265.mrslt	0.58 mg/L N	Fish Pond	15:03:44 02/06/2022
000264.mrslt	0.05 mg/L N	Fish Pond	15:03:32 02/06/2022

"Passed" result   "Failed" result

3.2 – How to Set Pass and Fail Limits

The process for setting pass and fail limits involves the following three steps:

- Creating a label.

- Add a test parameter that you want to measure under that label.

- Set the limits for that parameter.

This is best explained with following example.

Creating a label

Let's assume we are testing a hot tub. We would start by creating a label called **Hot Tub**.
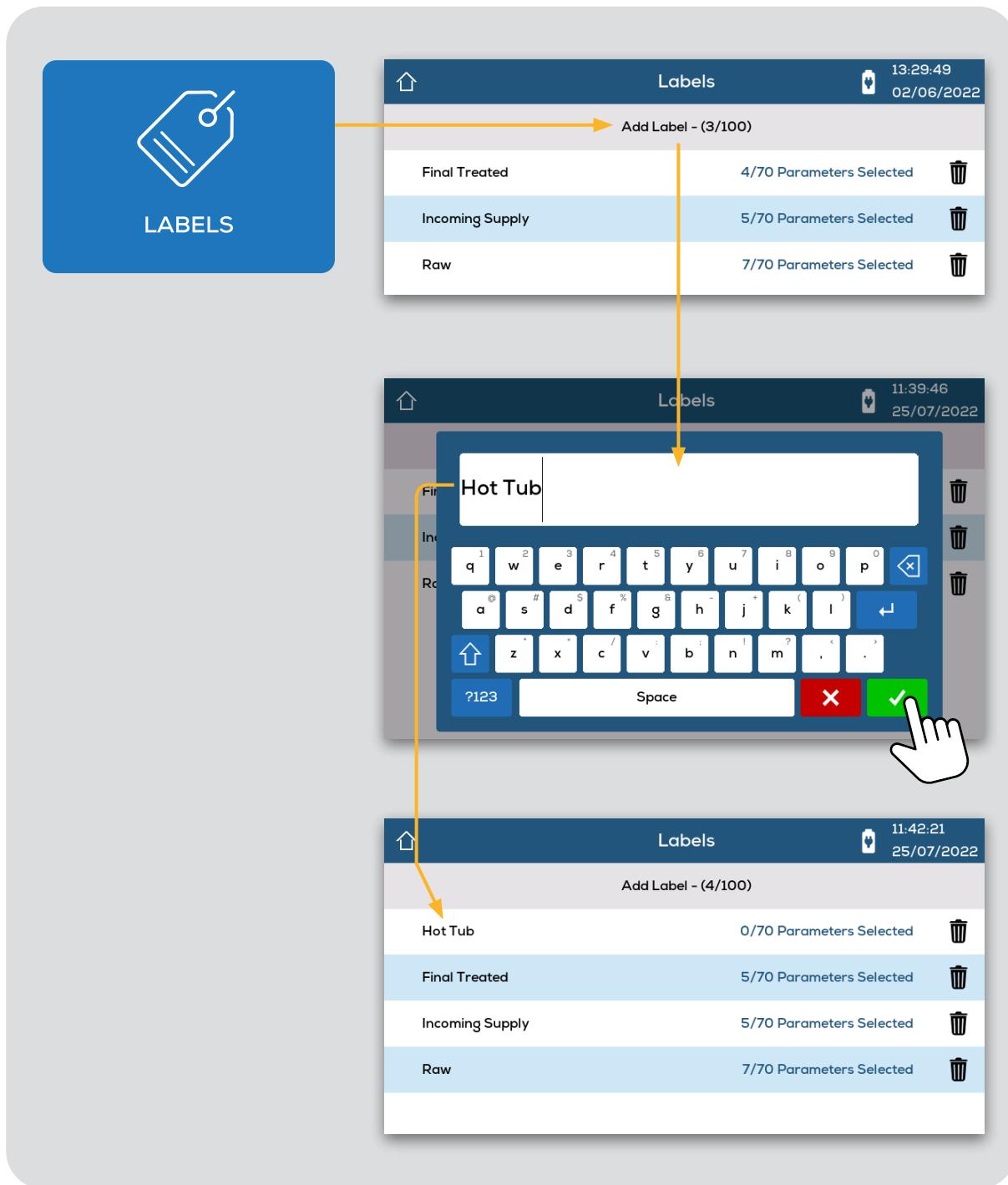
Adding a parameter to a label

Note that next to the newly created label it says that there are no parameters selected. The label cannot be used until parameters have been added by pressing here.

Labels		11:42:21 25/07/2022
Add Label - (4/100)		
Hot Tub	0/70 Parameters Selected	🗑
Final Treated	5/70 Parameters Selected	🗑
Incoming Supply	5/70 Parameters Selected	🗑
Raw	7/70 Parameters Selected	🗑

Hot Tub — 11:45:05 25/07/2022

Add Parameter - (0/70)

Hot Tub — 11:45:58 25/07/2022

✕

- Alkalinity P
- Alkalinity, Total
- Aluminium
- Ammonia
- Bromine, Free
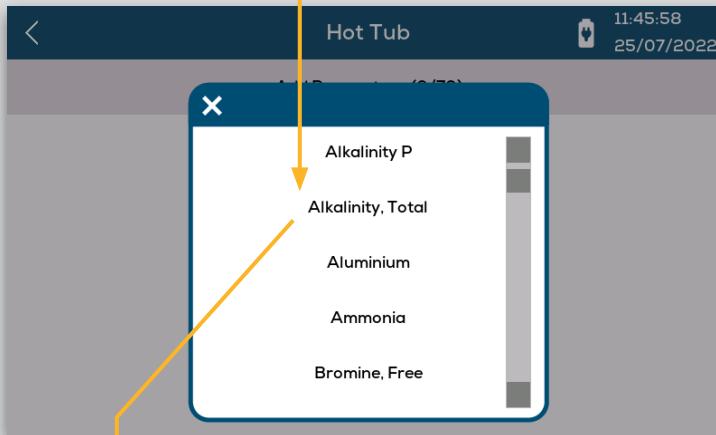
'Alkalinity, Total' has now been added as a parameter to this label. In this case, no pass or fail limits have been set yet.

Hot Tub — 11:52:42 25/07/2022

Add Parameter - (1/70)

Alkalinity, Total	-/- mg/L CaCO₃	🗑
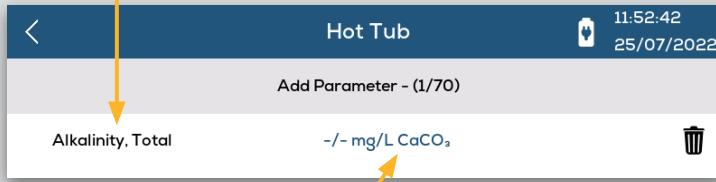
Setting the limits

	Hot Tub	11:52:42 25/07/2022
	Add Parameter – (1/70)	
Alkalinity, Total	-/- mg/L CaCO₃	🗑

	Hot Tub	14:14:01 25/07/2022
	Add Parameter – (1/70)	

Lower Limit >10
Upper Limit <500
Dilution 1 – 10   1   ▶
Chemical Species   CaCO₃   ▶

7 8 9 ⌫
4 5 6 -
1 2 3 Save
0 .

	Hot Tub	14:14:01 25/07/2022
	Add Parameter – (1/70)	

Upper and Lower limits have been set.

No dilution has been set. (1 = No dilution)

Chemical species is set to CaCO₃

Lower Limit >10   80
Upper Limit <500   120
Dilution 1 – 10   1   ▶
Chemical Species   CaCO₃   ▶

7 8 9 ⌫
4 5 6 -
1 2 3 Save
0 .

4 – Home Screen Menus

SELECT TEST

Select Test

This accesses the Test Selection menu
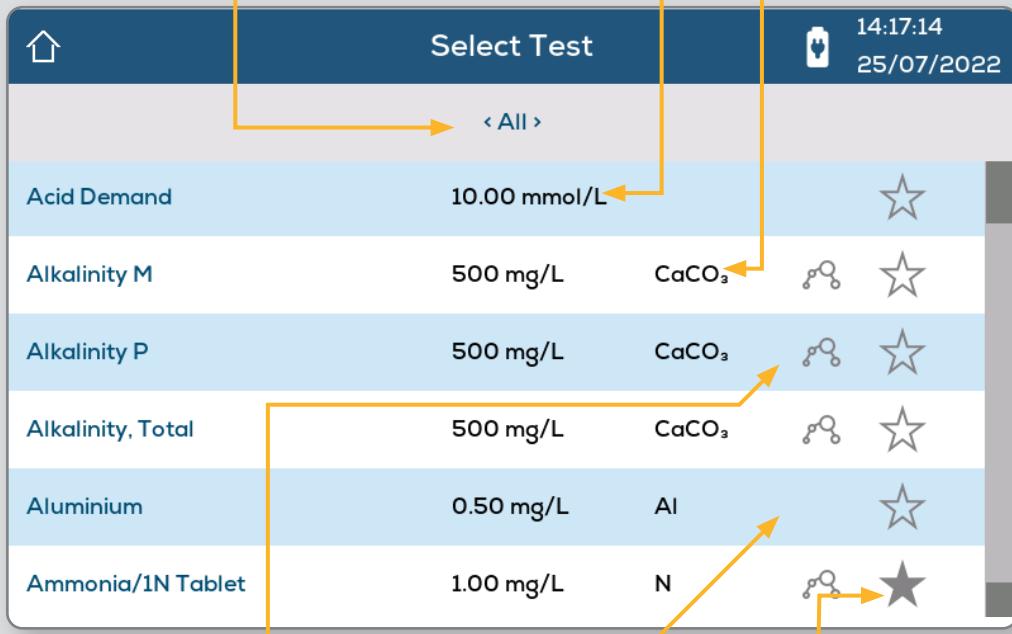
Pressing this toggles between <All> and <Favorites> lists.

This shows the upper limit of the test.

This shows the chemical species currently selected for that test.

⌂	Select Test	🔋	14:17:14 25/07/2022
	‹ All ›		
Acid Demand	10.00 mmol/L		☆
Alkalinity M	500 mg/L	$CaCO_3$	☆
Alkalinity P	500 mg/L	$CaCO_3$	☆
Alkalinity, Total	500 mg/L	$CaCO_3$	☆
Aluminium	0.50 mg/L	Al	☆
Ammonia/1N Tablet	1.00 mg/L	N	★

Press the molecule icon to change the chemical species for the test.

The space here indicates that there are no alternative chemical species for this test.

Press the stars to add tests to your Favorites list.

Check Standards

This has sub-menus for displaying the most recent instrument validation results and a simple process for storing values from the certificate to simplify the validation process.

See section: Care and Maintenance > Check Standards

Test Log

This enables viewing of all the test results in memory.

The first screen shows the filtering options.

Selecting a filter, for example "Parameter", will result in a list of all parameters for which results exist.

Test Log	14:18:27 25/07/2022
Filter By:	
All Results (252)	
Test Type	
Parameter	
Label	
User	
Passed (6)	

Select one of these parameters, e.g. Bromine, Total and the results for that parameter are shown.

Parameter	14:23:26 25/07/2022
TDS (10)	
Temperature (14)	
Bromine, Free (12)	
Bromine, Total (5)	
Turbidity (4)	
Ammonia (5)	
Aluminium (10)	

Parameter – Bromine, Total			14:25:11 25/07/2022
000273.mrslt	1.24 mg/L Br$_2$	Default	10:12:17 24/06/2022
000272.mrslt	2.09 mg/L Br$_2$	Default	10:12:10 24/06/2022
000222.mrslt	1.58 mg/L Br$_2$	Default	12:12:54 27/05/2022
000221.mrslt	1.59 mg/L Br$_2$	Default	12:00:59 27/05/2022
000220.mrslt	<0.04 mg/L Br$_2$	Default	12:00:37 27/05/2022

If limits are set for a parameter the results are color coded to indicate if the result is within the pass and fail limits set.

000317.mrslt	116 mg/L CaCO₃	Hot Tub	14:52:17 25/07/2022
000316.mrslt	53 mg/L CaCO₃	Hot Tub	14:50:18 25/07/2022
000315.mrslt	188 mg/L CaCO₃	Hot Tub	14:49:55 25/07/2022
000314.mrslt	336 mg/L CaCO₃	Hot Tub	14:49:40 25/07/2022
000313.mrslt	<10 mg/L CaCO₃	Hot Tub	14:49:22 25/07/2022
000312.mrslt	<10 mg/L CaCO₃	Hot Tub	14:48:35 25/07/2022
000311.mrslt	176 mg/L CaCO₃	Hot Tub	14:48:23 25/07/2022

Parameter – Alkalinity, Total — 14:53:03 25/07/2022

000317.mrslt — 14:54:39 25/07/2022

Alkalinity, Total — 25/07/2022 – 14:52:17

116 mg/L CaCO₃

Label: Hot Tub: 80/120 mg/L CaCO₃

User: Lab Tech 1

Filters Backwashed. 420 litres added

If any test line is selected it will reload the original test result screen and include any notes.
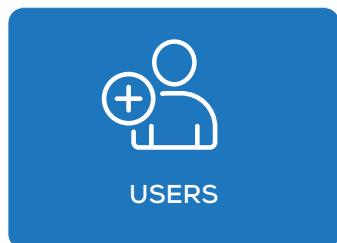
Users

USERS

User names can be added to make it possible to record who carried tests.

Labels

LABELS

Labels can be created to allow sorting and grouping of test and parameter results and apply pass and fail levels. Labels are also used to set dilution factors which will automatically calculate and store the result correctly for tests that are attached to that label.

See: Setting Pass and Fail Limits for a Test.

System Settings

The menu below appears when System Settings is selected. Each of these will open a sub menu. Any changes to these settings will be saved when the instrument is turned off. Note that sudden loss of power (if instrument is powered solely by USB) may result in setting changes not being saved.

| System Settings	15:33:08 25/07/2022
Sleep Delay	5 MINS
Brightness	85%
Date Format	DD/MM/YYYY
Date and Time	25/07/2022 - 14:58
Language	English
Buzzer	Enabled
Labels	Once
Users	Once
Units	mg/L
Temperature	°C
Device Info	

Sleep Delay

The 9800 can be set so that it will go on low power usage mode, including screen shut-off, after a period of inactivity. The period can be set from 2 minutes to 20 minutes. Sleep can also be disabled completely. The 9800 will not go in to sleep mode when powered by USB.
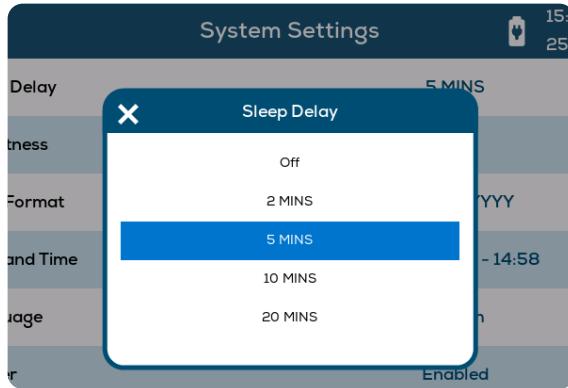

Brightness

Screen brightness can be set from 0 – 100%.
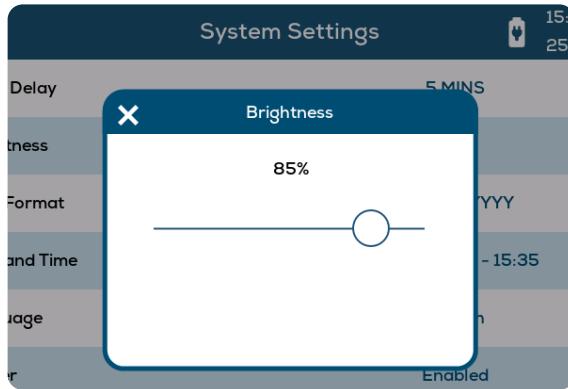
Date Format

The Day(D), Month(M) or Year(Y) and be set to one of three format options.
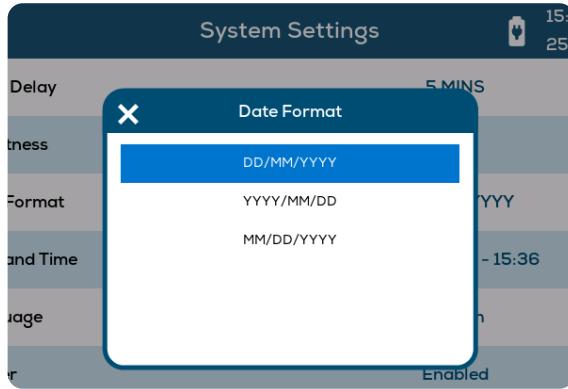
Date and Time

Use up and down arrows to set correct date and year. Time is set using 24 hour format.
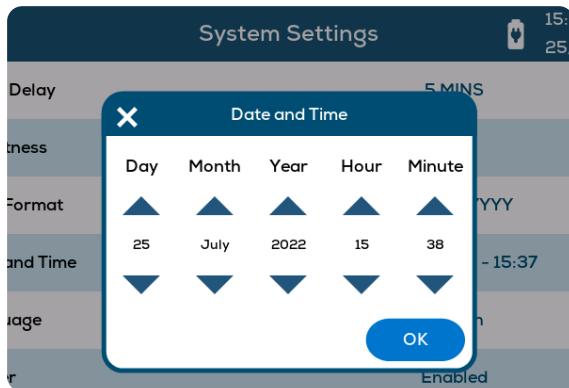
Language

Selectable in English, French, Spanish and Chinese (Simplified).

Buzzer

The buzzer will sound when the 9800 is powered up and when the test timer expires, but can be disabled.
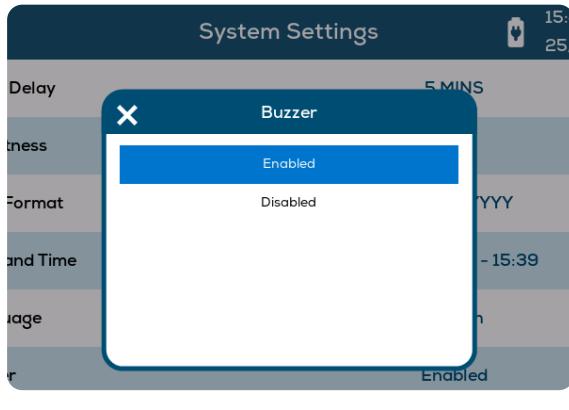
Labels

If no label is selected the test result screen will show: **CLICK TO ADD**.
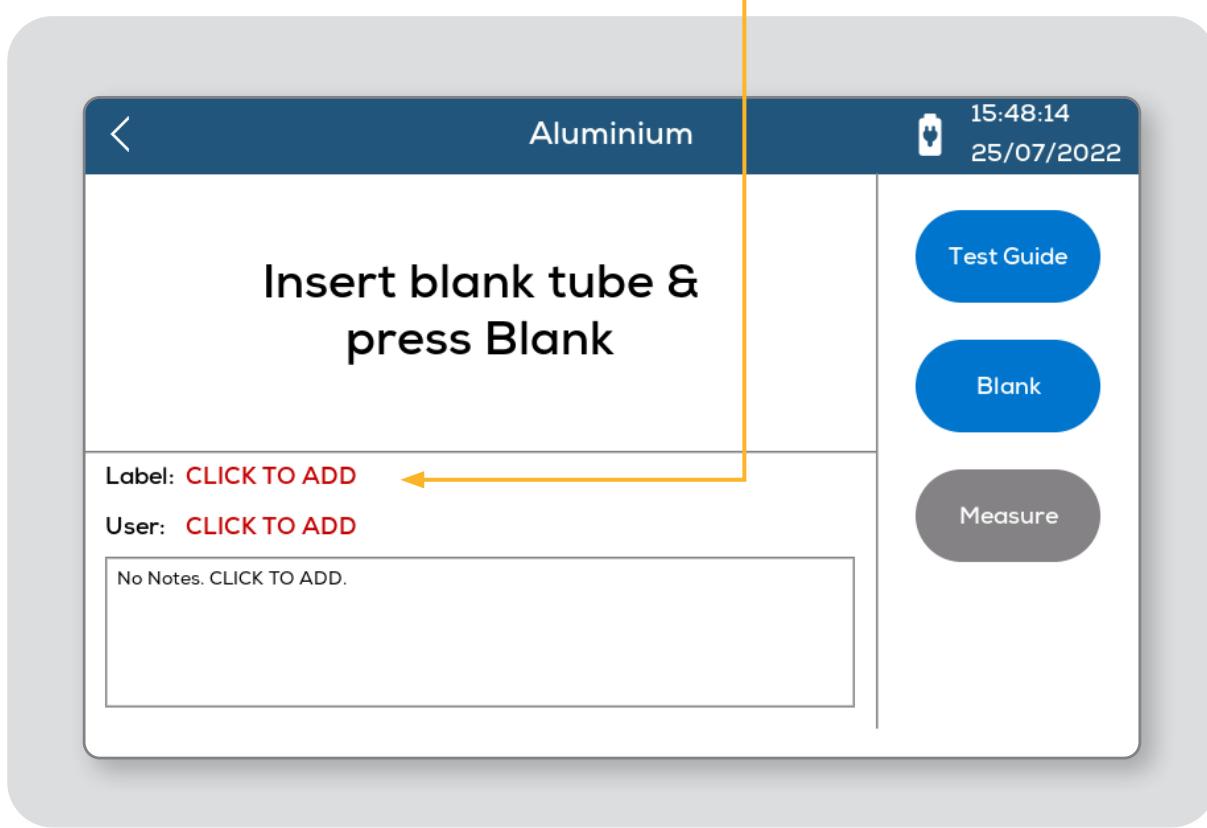
The 9800 can be set to prompt the user to attach a label to each result.
See: [Setting Pass and Fail Limits for a Test](#).

This option sets when and how often the user is prompted to add a label to a test result after a water test is carried out.
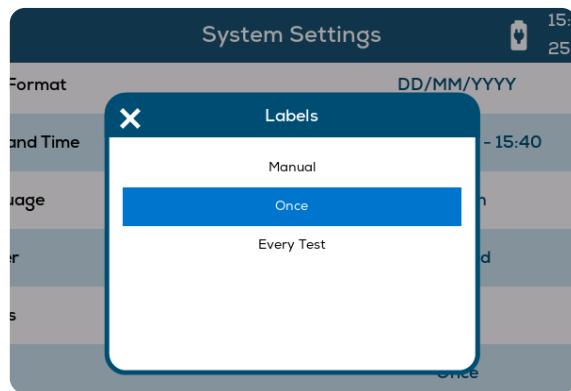
- **Manual** - There will be no prompting and results can be saved to the log without any label.

- **Once** – The tests results screen cannot be exited. This prevents the result being saved without a label being selected. Once a label has been selected, there will be no further prompts and that same label will be used for all future tests until the instrument is turned off.

- **Every Test** – There will be a prompt for a label every time a test is carried out. Any previously selected label will not appear on the test screen.

Users

This functions identically to the above prompt settings for labels but is applied to Users.

Temperatures

Allows temperature to be set to °C or °F.
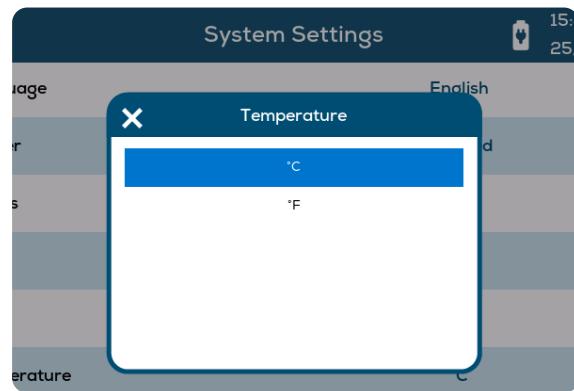
Units

This enables the default concentration units to be switched from mg/L to ppm (parts per million). These are equivalent units and it is a personal choice which is used.
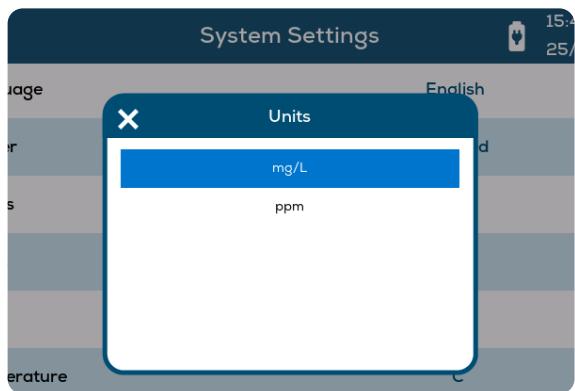
5 – Care and Maintenance

5.1 – Keeping the Optics Clean

The walls of the cell holder house an array of optical windows for the light sources and sensors. Therefore, any contamination in the optical cell may affect the accuracy of readings. If it is allowed to accumulate, it will trigger messages to be displayed (see: Information Messages).

Failures on some wavelengths when using check standards are also highly likely to be caused by surface contamination on the optics. This invariably affects some wavelengths more than others at first but over time will eventually affect all wavelengths.

Using photometer tubes that are wet on the outside can leave water droplets on the optics. These will act like lenses and can lead to erratic results, especially as they will be unstable and move due to vibration as the instrument is being used.

Clean optical windows gently with a soft, non-abrasive cloth dampened with water or anti-static foam cleaner. Do not use solvents.

Please Note: Instrument failures due to contamination will not be covered by the warranty.

5.2 – Check Standards

Check Standards are available to purchase separately for the YSI 9800.

Using check standards is a simple way to verify the performance of the instrument and check that it is within calibration.

Check Standards are comprised of neutral density filters in special holders. These absorb a similar level of light at all frequencies. Therefore, a single NDF can perform the same checks as the different liquid color standards used with earlier YSI photometers.

The value expected for each check standard is on a certificate that is supplied with the set. On the certificate is a 16 digit number that just needs be entered once into the 9800. As below:

This only needs to be done once by entering the 16 digit code from the certificate.

Check Standards

Assigned Values

Update Values

#B#j 6Pk+ z9C# #t*4
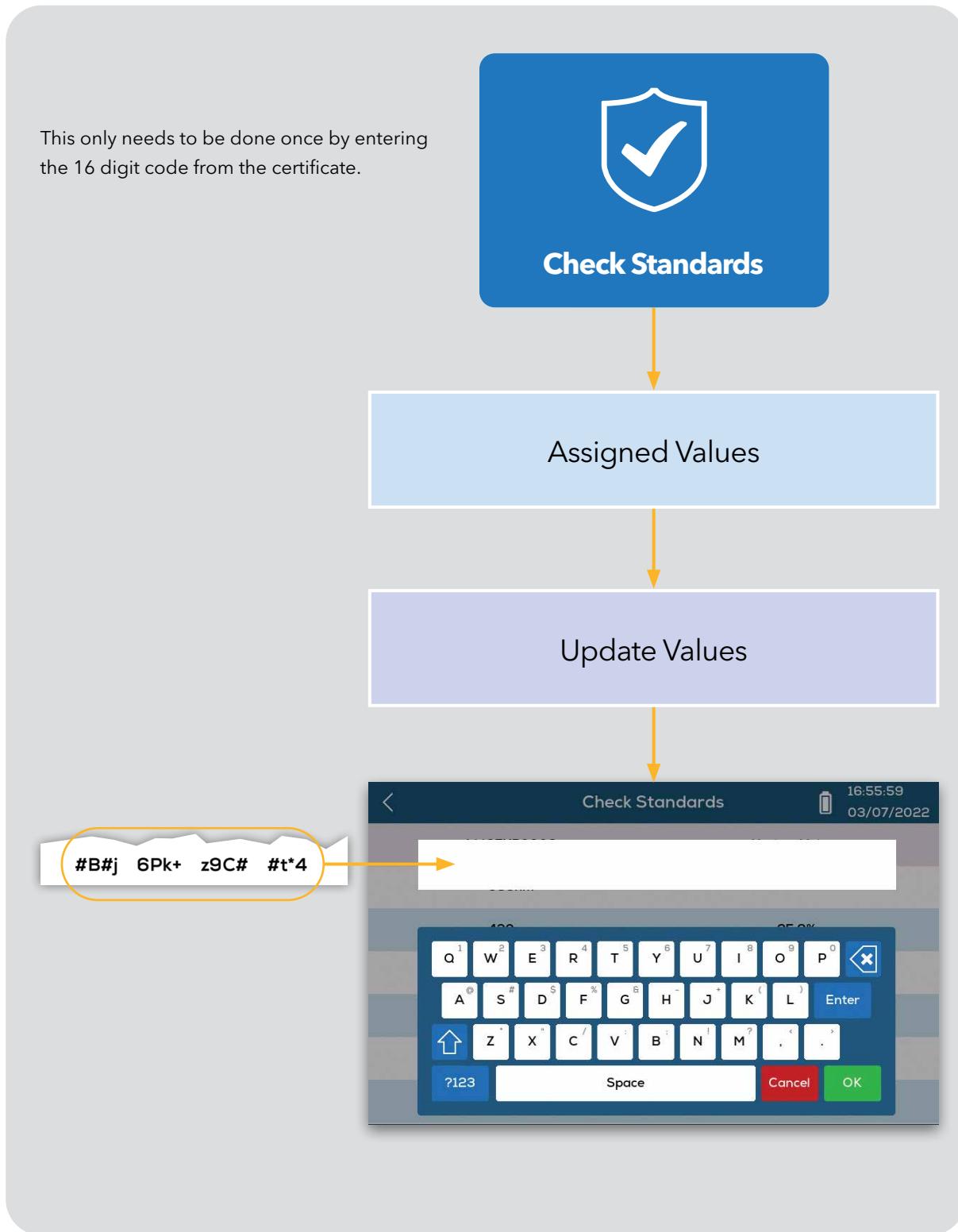
5.3 – Verifying All Wavelengths

Select Measure All Wavelengths and follow on-screen prompts.

Use the Blank first in each position then insert NDF B and Measure every wavelength.

Check Standards

Measure All Wavelengths

	LMCEXP0001	16:53:23 08/03/2023

Insert Blank at Index: 430

Test Guide

Blank

Measure

Next

	Check Standards	11:21:05 20/04/2022

LMCEXP0001	Result	NDF B	Date and Time
430nm	PASS	71.7%	20/04/2022 – 11:18:49
465nm	PASS	71.6%	20/04/2022 – 11:18:53
530nm	PASS	72.5%	20/04/2022 – 11:18:58
575nm	PASS	72.6%	20/04/2022 – 11:19:50
620nm	PASS	72.1%	20/04/2022 – 11:19:18

Note: There is also an option for checking a single wavelength.

5.4 – Updating Firmware

Check for Firmware version in the System Settings > Device Info.
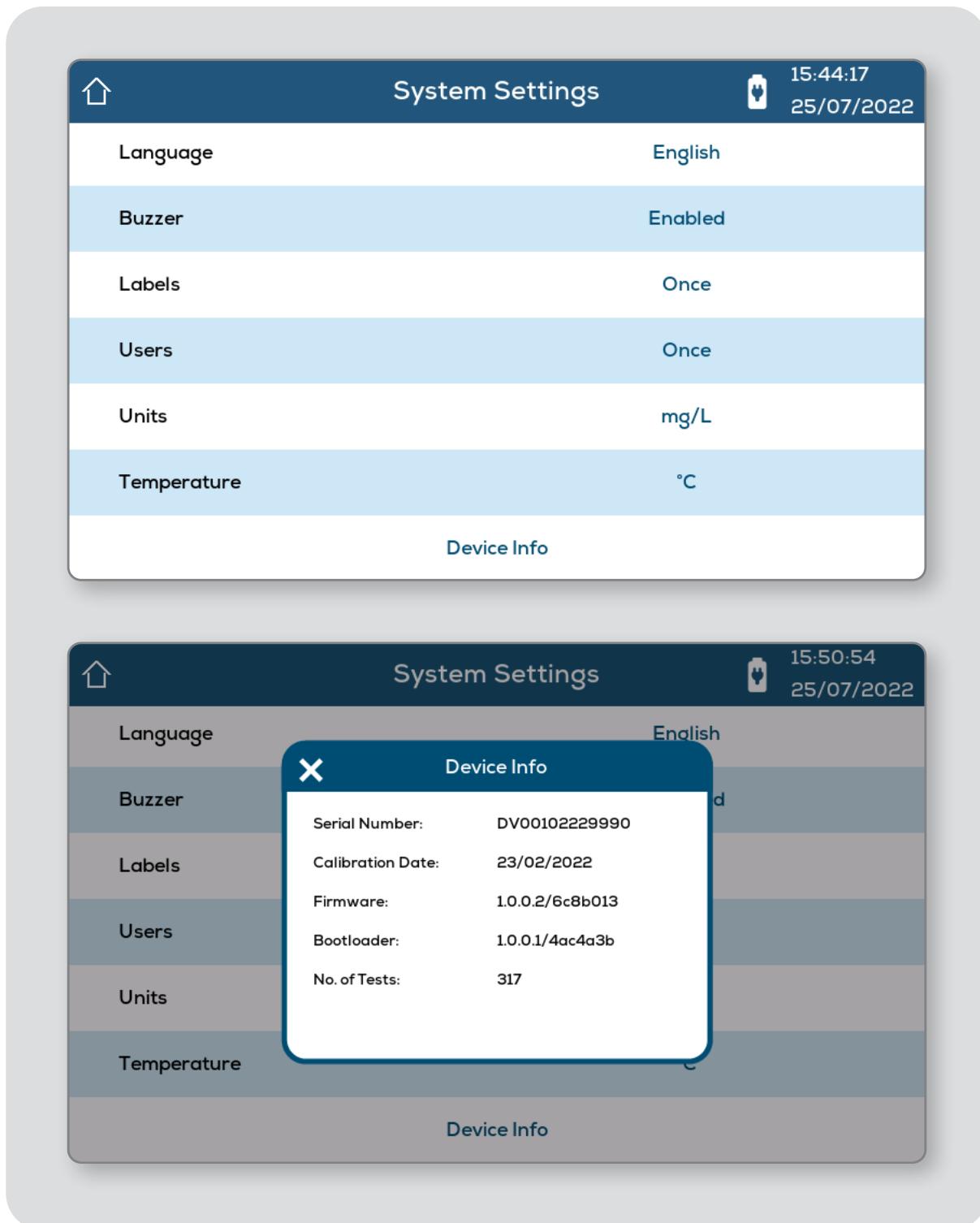
System Settings	15:44:17 25/07/2022
Language	English
Buzzer	Enabled
Labels	Once
Users	Once
Units	mg/L
Temperature	°C
Device Info	

Device Info

Serial Number:	DV00102229990
Calibration Date:	23/02/2022
Firmware:	1.0.0.2/6c8b013
Bootloader:	1.0.0.1/4ac4a3b
No. of Tests:	317

To update firmware, connect the 9800 to a PC using a USB A to C cable

YSI 9800 will appear as a Drive and can be renamed

Devices and drives (4)

YSI 9800   Local Disk (C:)   Local Disk (D:)   External (E:)
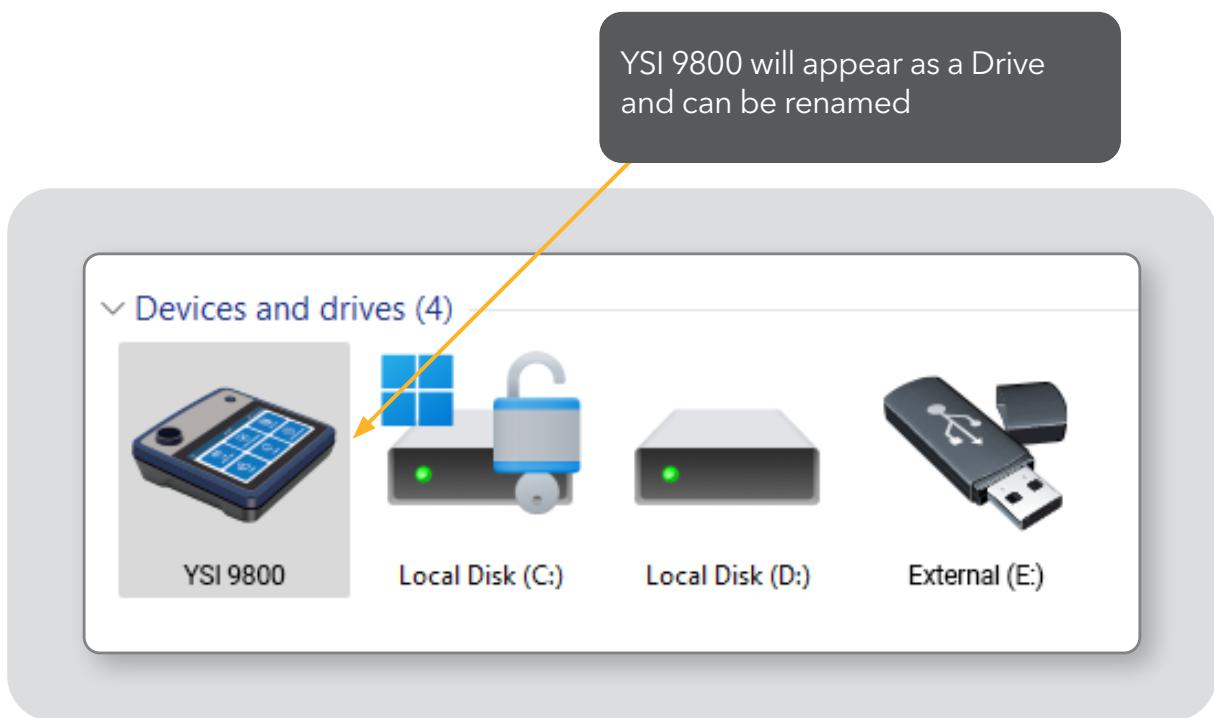
If a new Firmware file has been downloaded or sent electronically, drag and drop that file in to this drive.

5.5 – Battery Replacement

1

The battery cover is held in place with a clip. Push clip fully in and lift cover.
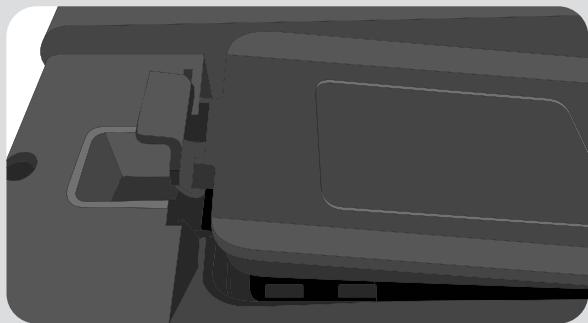
2

Use 6 AA batteries. Note polarity before replacing.
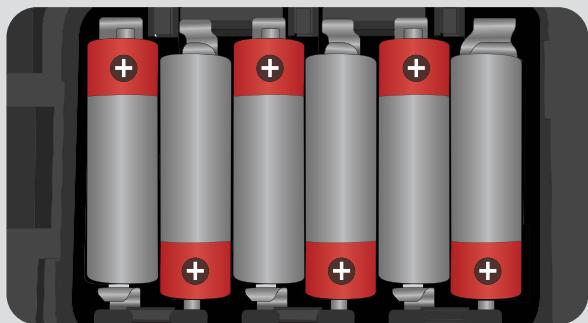
3

Spring clips hold the batteries securely in place. Push on the '+' end of the battery, and lift as shown.

Insert new batteries in the same way but pushing down.
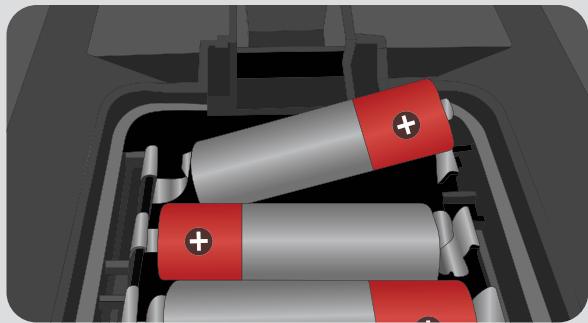
4

Push battery clip in gently and push cover down until the clip locks. This will maintain the IP-67 water seal.

Note: The seal is pushed through the casework in battery compartment, so does not require strong downward pressure to be watertight.
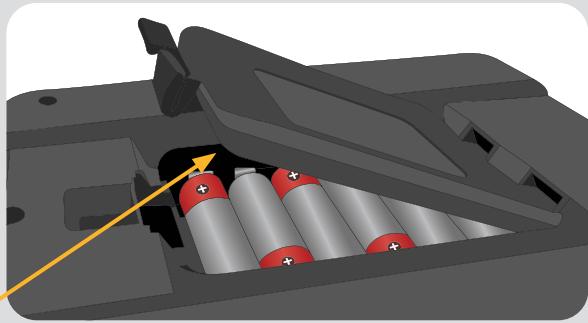
## Notes on Battery Changing

- Avoid replacing batteries in wet or humidity condensing locations.

- Disconnect the instrument from any other equipment before replacing the batteries.

- Take care to avoid damaging the seal.

- The battery monitoring symbol may not display correctly when rechargeable batteries are used.

- Dispose of used cells responsibly by ensuring they are recycled.

6 – Technical Specifications

Instrument	YSI 9800; multi wavelength, direct reading photometer
Optics	Multi LED light source optical system with narrow band wavelength filters and photodetectors
Test Tubes	25 mm diameter 16 mm diameter (using adapter)
Blank / Zero Setting	Held in memory, can be reset at any time. Automatic reset if tube size is changed or instrument powered down.
Measurement Range	0.1 to 100 %T (0 to 3 Absorbance Units)
Accuracy	+/-1 %T
Wavelengths	430 nm, 465 nm, 530 nm, 575 nm and 620 nm
Wavelength Tolerance	+/- 2 nm
Filter Bandwidth	5 nm
LCD Display	7 in, 800 x 460 pixel with backlight
Instrument Operating Conditions	0 – 45°C; 90% Relative humidity, non-condensing Indoor and outdoor use Altitude up to 2000m, Pollution degree 4
IP Rating and Standards	IP-67 (Waterproof)
Power Supply	6 x AA batteries; can also be powered via USB
USB Port	USB, type C; 6 V max, 500 mA max, DC
Dimensions	220 x 200 x 55 mm (8.7 x 7.9 x 2.2 inches)
Weight	850 g (1.87 lbs)
Languages	English, French, Spanish, and Chinese (Simplified)

7 – Warranty

The YSI 9800 photometer is warrantied for one (1) year from date of purchase by the end user against defects in materials and workmanship, exclusive of batteries and any damaged caused by defective batteries. Within the warranty period, YSI will repair or replace, at its sole discretion, free of charge, any product that YSI determines to be covered by this warranty.

To exercise this warranty, call your local YSI representative or contact YSI Customer Service in Yellow Springs, Ohio at 800-897-4151. Send the product and proof of purchase, transportation prepaid, to the Authorized Service Center selected by YSI. Repair or replacement will be made and the product returned, transportation prepaid. Repaired or replaced products are warranted for the balance of the original warranty period, or at least 90 days from date of repair or replacement.

Limitation of Warranty

This Warranty does not apply to any YSI product damage or failure caused by:

1. failure to install, operate or use the product in accordance with YSI's written instructions;

2. abuse or misuse of the product;

3. failure to maintain the product in accordance with YSI's written instructions or standard industry procedure;

4. any improper repairs to the product;

5. use by you of defective or improper components or parts in servicing or repairing the product;

6. modification of the product in any way not expressly authorized by YSI.

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1) The tissue in plants that brings water upward from the roots;

2) a leading global water technology company.

We're a global team unified in a common purpose: creating advanced technology solutions to the world's water challenges. Developing new technologies that will improve the way water is used, conserved, and re-used in the future is central to our work. Our products and services move, treat, analyze, monitor and return water to the environment, in public utility, industrial, residential and commercial building services settings. Xylem also provides a leading portfolio of smart metering, network technologies and advanced analytics solutions for water, electric and gas utilities. In more than 150 countries, we have strong, long-standing relationships with customers who know us for our powerful combination of leading product brands and applications expertise with a strong focus on developing comprehensive, sustainable solutions.

For more information on how Xylem can help you, go to www.xylem.com

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