CL17sc Chlorine Analyzer: The Next Standard in Online Chlorine Measurement

Introduction:

The CL17sc carries forward Hach's proud legacy of reliability in online chlorine analysis. Like its predecessor, the CL17sc uses DPD chemistry to deliver accurate residual chlorine measurements across a wide range of sample conditions. New features and capabilities make the CL17sc an even more valuable tool for water professionals.

Target segments / customers:

- Drinking water, waste water, and industrial water professionals with residual chlorine in the 0-10 mg/L range.
- Customers with aging process chlorine analyzers.
- Customers who want to reduce time spent on regular maintenance and troubleshooting.
- Customers who may have moved to amperometric analyzers due to a perceived reduction in cost and/or maintenance requirements.

What's new:

- **Claros connectivity:** The CL17sc can be used with Hach's innovative Mobile Sensor Management, which allows users to view measurements and instrument status anytime, anywhere, on any web-enabled device. Alerts for upcoming maintenance and issues requiring immediate attention are all in the palm of your hand. Detailed, step-by-step illustrated instructions for routine maintenance tasks also allow users to feel confident they've performed maintenance correctly.
- **SC Controller Platform:** The CL17sc is now connected to Hach's sc controller platform, enabling users more flexibility to transfer, store, and interact with their process chlorine measurement data, resulting in (1) better understanding of their processes, (2) deeper insights into current conditions, (3) better and more cost-effective decision-making, and (4) peace of mind that their data is always there no matter what happens. SC Controller connectivity also allows for wired and wireless digital communications.
- **Quicker, easier upkeep:** Totally redesigned tubing and pump system dramatically reduces time spent on routine upkeep—one of the biggest frustrations with the CL17. Additionally, for each routine maintenance activity, the CL17sc provides step-by-step workflows, giving users confidence that they performed the task correctly.
- **Expanded measurement range:** The CL17sc measures residual chlorine from 0-10 mg/L, providing accurate and precise readings across an extended range.
- **Comprehensive diagnostics:** The CL17sc adds several diagnostic features that help users identify issues and know their instrument is working as intended.
  - ✓ A built-in flow meter helps diagnose one of the most common user issues and saves time and frustration.
  - ✓ A three-color status light gives users immediate feedback—even from across the room—on the instrument's operating condition.
  - ✓ A tri-sequence LED measurement cycle indicator shows users which stage of the measurement cycle the instrument is performing at all times.
  - ✓ A colorimeter window allows user to see into the measurement cell themselves.
  - ✓ On-screen alerts and diagnostics means no more unnecessary hours spent guessing what's wrong.
  - ✓ Hach's proprietary PROGNOSYS® predictive software monitors the instrument's vital signs and alerts users to maintenance needs before measurements are affected.

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How to position the CL17sc and CL10:

	Pros	Cons
	• Accuracy (no calibration needed) • Unattended operation for up to 30 days • Results independent of changes in sample pH, temperature, pressure / flow, and Cl_2 concentration	• Reagents and waste stream management • Upper limit of 10 mg/L
	• Fast response to changes in Cl_2 concentration • Reagentless • No waste stream • Range from 0-20 mg/L	• Must maintain constant flow to the instrument • Greater interference from sample pH, temperature, pressure / flow, and Cl_2 concentration—requiring more frequent calibration • Cannot be used to monitor absence of chlorine

Questions to ask:

Q: How much variation in pH, temperature, and/or Cl2 concentration do you see in your sample?
Potential pain: Variable sample conditions cause inaccuracy and require frequent calibration of amperometric analyzers.

Q: How often do you calibrate your amperometric analyzer? Would it be valuable to have that time back?
Potential pain: Variable sample conditions cause inaccuracy and require frequent calibration of amperometric analyzers.

Q: How much time is spent maintaining your current analyzer?
Potential pain: Excessive time spent replacing tubing, calibrating, and/or cleaning.

Q: How do you know that your current analyzer is operating as intended?
Potential pain: Current instrument may provide little or no visual feedback regarding operating status.

Q: How much time do you spend troubleshooting issues with your current analyzer?
Potential pain: Current instrument may provide little or no diagnostic information to pinpoint problems and direct the user toward efficient resolution.

Q: How does your current analyzer capture and communicate data? How would you like it to connect?
Potential pain: Users want to do more with their chlorine data, but their instrumentation may not allow for easy consumption or analysis.

Q: How do you plan to take care of your new CL17sc to maximize instrument uptime, ensure data integrity, maintain operational stability, and reduce compliance risk?
Potential pain: Limited internal resources to dedicate to service. Lack of internal knowledge to service instruments beyond tubing changes. Inability to perform a calibration verification with primary standards throughout the entire measuring range. Fixed budget with little room for unplanned repair expenses.

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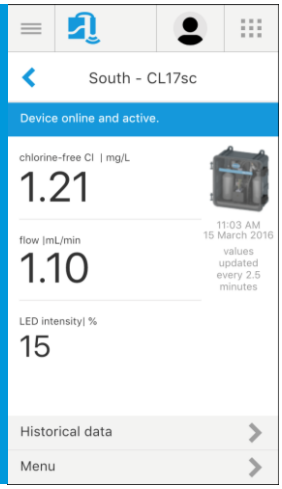
Claros Mobile Sensor Management Highlights:

- Users can see chlorine, flow, and measurement data on device detail view from any web-enabled computer, tablet, or mobile device
- Users can also see instrument status information, such as:
  - Warnings (low chlorine, high chlorine, low sample flow, high sample flow, clean cell soon, etc.)
  - Errors (LED error, sample leak, pump error, etc.)
- All routine maintenance activities (reagent change, tubing change, cell cleaning) can be triggered from Mobile Sensor Management
- Mobile Sensor Management capabilities will expand in the first six months after the CL17sc launch to include illustrated instructions for all routine maintenance

Claros Mobile Sensor Management Screenshots:

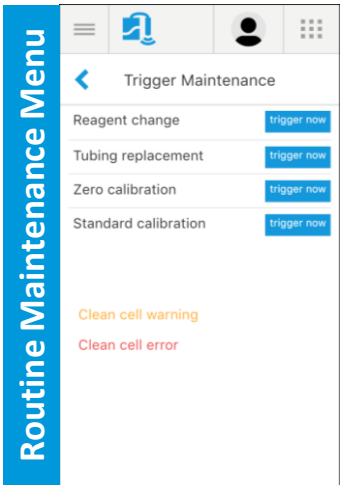
*Illustrated workflows available in post-launch release targeted Q1 2020.

Device Detail View

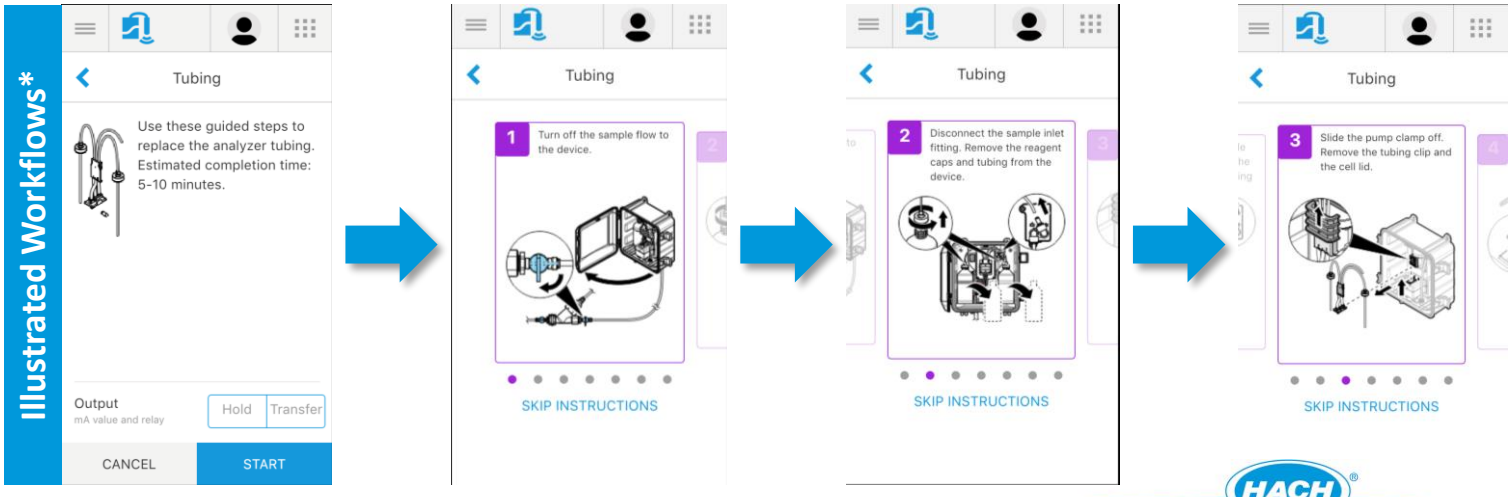


Routine Maintenance Alert

Routine Maintenance Menu



Illustrated Workflows*



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