# ResQ CQL

## Setting the *NEW* standard for handheld 1064nm Raman chemical analysis

The advancement of handheld 1064nm Raman continues with ResQ<sup>™</sup> CQL. Based on the combination of an award-winning platform and proven performance, the ResQ CQL offers first responders, border protection, and law enforcement with an advanced method for identifying potential threats – such as explosives, precursors, hazardous chemicals and narcotics. By integrating the 1064nm Raman advantage for the identification of unknown bulk compounds with a technique for detecting trace amounts of a potential deadly hazard, the ResQ CQL is the tool of choice for a safer response. The improved ergonomics provides users with the ability to access difficult sample types in the toughest environments with an easy-to-use analytical device. The unique features and capabilities of ResQ CQL include:

- · Perform analysis more conveniently with a small, mobile and handheld device
- · Identify bulk and trace levels of substances for both presumptive and confirmatory results
- Add pictorial evidence using on-board camera for traceability
- Create tamper-proof reports for data security





ResQ CQL SPECIFICATIONS		
Mode of Operation	Handheld, or hands-free with test stand	<ul> <li>Conveniently and safely analyze threats with ease of use in a hotzone</li> <li>Includes measurement delay timer (up to 10 minutes) for additional safety</li> <li>Remote operation by PC or tablet using WiFi or USB</li> </ul>
Excitation Wavelength	1064nm	<ul> <li>Reduces fluorescence interference to measure a broader range of substances – including colored materials or through colored packaging</li> </ul>
Output Power	Up to 490mW adjustable laser excitation power	<ul> <li>Allows for customization of analysis parameters to obtain most accurate analysis of your specific materials</li> </ul>
Graphical User Interface	Touchscren and softkeys	<ul> <li>Smartphone-inspired with bright, touchscreen display or large button navigation for use when wearing protective gloves</li> </ul>
On-board Digital Camera	Included with LED	Record sample evidence and store with analysis
On-board Reporting	Included	Immediate PDF generation and transfer of results with camera images
Standard Library	Included	<ul> <li>Up to 13,000 compounds including CWA, explosives, precursors TIC/TIM, narcotic</li> </ul>
User-Created Library	Included	<ul> <li>Easily adaptable for new, emerging threats into a custom library, export to share with other ResQ CQL users worldwide</li> </ul>
Threat Recipe alerts with 4C™ Technology	Automatic	<ul> <li>Expands incident response by warning users of potential dangerous combinations</li> </ul>
Data Transfer	Included	Transfer results via WiFi or USB
QuickDetect <sup>™</sup> Automated Colorimetrics	Optional	• Add the ability to detect non-visible amounts of narcotics and/or explosives
Operating Temperature	-20 to 50°C intermittent, +40°C continuous	
Certification	U.S. MIL-STD 810G, IP-68	
Battery Power	Included: rechargeable 7.4 Li-Po, 3600 mAH Compatible: disposable CR123A (six) 3.0V, 1550mAh	
Size	18.5cm L x 15cm W x 7.9cm H (7.28in L x 5.9in W x 3.11in H)	Allows for single-hand operation
Weight	~1.4kg (3.25lbs)	
Warranty	24 months	
Industry Regulation Compliance		<ul> <li>SWGDRUG Category A technique for presumptive testing</li> <li>SWGDRUG Category C technique for confirmatory testing (with addition of QuickDetect)</li> </ul>

• FDA 21 Part 11 compliance

The ResQ CQL is not ITAR-restricted, though a U.S. Department of Commerce export license may be required for some countries.









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### Reso COL with new QuickDetect for trace analysis

### Two Proven Technologies - now available on One Device!

The Rigaku **ResQ<sup>™</sup> CQL 1064nm analyzer** is the first field-ready handheld Raman tool to provide both bulk and trace analysis of narcotics, explosives, precursors and chemical warfare agents in seconds. By combining the industry's most advanced 1064nm handheld Raman for the identification of bulk substances with the capabilities of QuickDetect<sup>™</sup> to provide automated colorimetrics for the detection of non-visible trace amounts, ResQ CQL meets SWGDRUG confirmation standards in one unit. Users benefit from reduced fluorescence interference of the 1064nm Raman advantage when scanning through packaging or colored substances while now also having the ability to identify residues or non-visible amounts easily - thus providing the ability to *identify more*.

## Narcotics Detection & Identification

## Explosives Detection & Identification





QuickDetect technology is an optional feature that may be added at the time of purchase or after.



With the integration of QuickDetect automated colorimetrics, the Rigaku ResQ CQL expands at-scene capabilities by following these easy, general steps:

#### Step 1



Obtain correct pouch based on detection needs.





Remove the swab from the pouch. Notice the swabbing pad at the end of the swab. This is the pad used to acquire sample.

#### Step 3



Hold the swab in your hand with one finger behind the pad end of the swab. Swab the surface, powder, or other sample

#### Step 4\*



Insert the swab back into the pouch in the same orientation (pad end first, facing the label). Specific insertion instructions are dependent on the pouch type.

#### Step 5\*



Holding the pouch upright, crush the two ampoules by pressing on the areas indicated by the "Press Here" arrows on the label.

#### Step 6\*



Holding the pouch upright, Shake until you see liquid reach the bottom swab chamber in the pouch.

View result.

#### Step 7\*



Holding the pouch upright, push the swab further into the pouch until it reaches the bottom of the pouch. Shake as needed to ensure liquid covers the entire pad in the detection area.

#### Step 8\*



Choose "QuickDetect" from the main ResQ screen to activate the camera. Hold the pouch in view while centering the QR code within the yellow box.\*

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Step 9\*



\*Depending on the test performed, steps 4-8 will be dependent on the specific pouch. Detailed instructions can be found on the outside of each pouch box

QuickDetect is an optional feature only available on the Rigaku ResQ CQL 1064nm handheld Raman analyzer.

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