

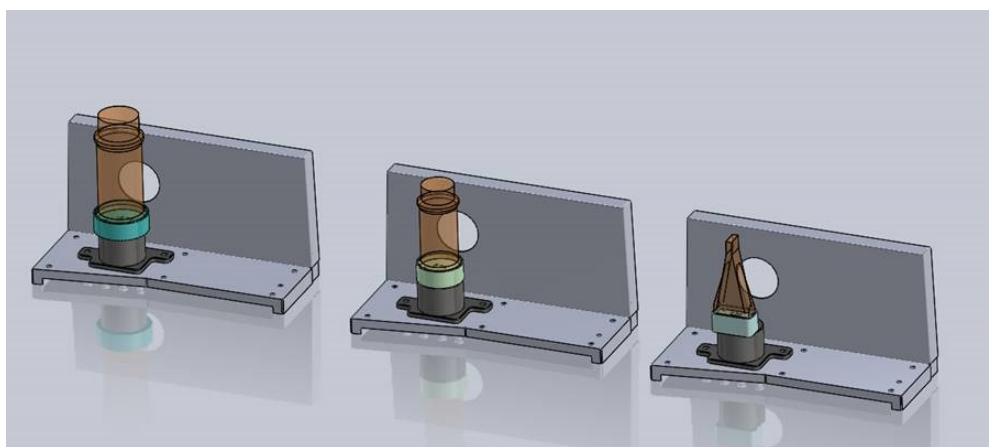
## CMR-3205 Addendum

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### Description

CMR-3205 allows for rapid and consistent color measurement in an area of a finished blown bottle near the base of the bottle. It was designed for a ColorQuest XE but any sphere instrument such as a ColorQuest XT, UltraScan PRO and UltraScan PRO can be used.

The CMR-3205 is a constant fixture with a top (secured by pin alignment and a magnet) fitted for different bottle shapes and sizes.



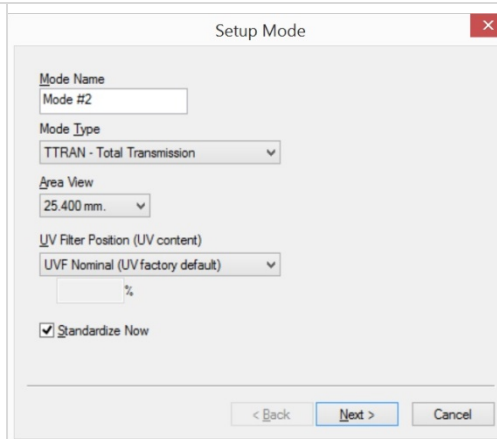
### Installation

- Fit the CMR-3205 base in the transmission compartment using the thumb screws. Make sure the arrow points towards the sphere port.
- Attach bottle base appropriate for bottle being measured to CMR-3205 base, also with arrow pointed towards the TTRAN sphere port. This ensures consistent alignment of the CMR fixture.



### Operation

1. In EasyMatch QC software, go to Sensor/Set Mode and create a mode for TTRAN transmission, LAV (typically 1 inch or 25.4 mm), UV Filter Nominal



2. Select Sensor/Standardize (F4) to begin standardization protocol. The white tile is positioned at the reflectance port to complete the sphere and is left there for all measurements.
3. Standardize instrument in transmission using black card as the bottom-of-scale standard to set 0% transmission and Air (empty transmission compartment; no bottle) as the top-of-scale standard for 100% transmission.
4. As an PQ (Performance Qualification) step, read back Air as a standard. If the instrument is set up correctly, the CIE L\*, a\*, b\* D65/10 values in the Color Data View should read 100, 0, 0 closely. If so, proceed to read bottle samples.

ID	L*	a*	b*	dL*	da*	db*	dE*	dE CMC	dE CMC (l.c)
PO read back of Air	100.00	0.00	0.00	100.00	0.00	0.00			

5. In EasyMatch QC, select Options/Average Method and set n of N to 6 (optional 8). Go to Measurements and select "Average" to turn on the feature to average multiple readings. There can be considerable variation in the bottle color that must be averaged. Select File/Save Job Template As "01 Basic Color Template" as default template.
6. Place the bottle (matched to base) in place and select Measure/Read Sample to make a reading. Rotate the bottle and take a second reading. Continue to rotate and take readings until N readings are taken. Select "Average" to average the multiple readings for a consistent measurement.
7. For the triangular bottle, rotate the bottle between front and back sides.



8. Within that View, navigate to the Color Scales and select "Rd a b" color scale using the right or left arrows to display as an "Absolute" values.

9. To change from one bottle to the next, just change the bottle top fixture to match the bottle base.

