

# ESL 211 Replaceable Optical Chamber

Quantity 10

## MAINTENANCE, CLEANING and SENSITIVITY TESTING

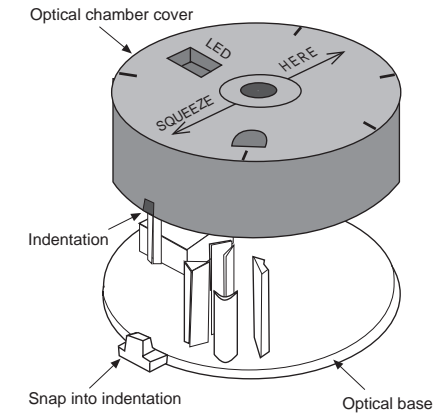
This series of self-diagnostic smoke detectors is designed for easy field service and maintenance. If a detector drifts beyond its approved sensitivity range for more than 24 hours, or fails internal diagnostic tests, the unit automatically indicates trouble by flashing its LED every second. This meets NFPA 72 field sensitivity testing requirements without the need for external meters. In accordance with NFPA 72, smoke detector sensitivity should be checked within one year after installation and every alternate year thereafter.

The optical chamber unsnaps from the detector for easy field cleaning and service. Once a year (or more, in dusty environments), open the detector cover, snap off and throw away the optical chamber (see Diagram). Use a vacuum and/or filtered compressed air to remove dirt from the optical base. Then snap a new optical chamber (model 211) back in place and verify sensitivity with the Sensitivity Level Test (below). **NOTE: Be sure new optical chamber cover is seated all the way down.**

### Sensitivity Level Test Mode

Each detector includes a sensitivity test mode that is activated by holding a magnet near the integral reed switch for more than one second. This initiates the self-diagnostic routine and provides visual indication if service is required. The alarm LED provides the following indication (see sensitivity chart).

After the sequence of blinks, if the sensitivity is found to be within limits and if all other tests pass, the detector will go into alarm until reset by the panel. If the sensitivity is not within limits, or an unserviceable hardware fault has been detected, the alarm LED will continue to flash once per second until the detector is reset by the panel.



Sensitivity Chart

Approximate obscuration (%/ft.)	Blinks	Indication
	1	Unserviceable hardware fault is detected
4.35	2	Detector is not sensitive enough
3.85	3	
<b>3.60</b>	<b>4</b>	<b>Detector is within sensitivity limits</b>
<b>3.10</b>	<b>5</b>	
<b>2.60</b>	<b>6</b>	
<b>2.10</b>	<b>7</b>	
1.85	8	Detector is too sensitive
1.35	9	

**ESL**  
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