



Residential vs. RV Use UL 2034 Testing Standard

UL 2034 70.1: A carbon monoxide alarm intended for use in recreational vehicles and unconditioned areas such as garages, attics, and the like shall comply with the requirements specified in Sections 71 – 74, in addition to the requirements specified in Sections 1–69 and 76–84, inclusive.

Requirement	Residential Approval	RV Use Approval
Marking requirement on alarm such as as “Recreational Vehicle Carbon Monoxide Alarm”, or “Unconditioned Area CO Alarm” or equivalent.	NO	YES
Pass the Variable Ambient Temperature and Humidity Test : 71.1 There shall not be false alarms or adverse change in performance when two units, one at maximum and one at minimum sensitivity, are subjected to each of the following conditions: a) Thirty days in air at 66±3°C (150±6°F), b) At least 72 hours at minus 40±2°C (minus 40±4°F), and c) Ten days in 93±2 percent humidity at 61±2°C (142±4°F).	NO	YES
All batteries included with Carbon Monoxide alarms intended for use in recreational vehicles or Unconditioned Areas shall at a minimum have a published operational specification range of minus 20 – 60 °C (minus 4 – 140 °F). Recommended replacement batteries must also meet the temperature range.	NO	YES Note: Carbon Zinc and Alkaline Batteries DO NOT meet this Temperature Spec.
Pass the Corrosion (Salt Spray) Test : 72.1 An alarm shall operate as intended and shall not false alarm after exposure for 48 hours to a salt spray in accordance with the procedure specified in the Standard for Salt Spray (Fog) Testing, ASTM B117-85. 72.2 Two alarms, one at maximum and one at minimum sensitivity, are to be subjected to the salt spray while in a de-energized condition. Following the exposure, the samples are to be removed, dried for at least 24 hours in an air circulating oven or air dried for at least 48 hours, and then subjected to the Sensitivity Test, Section 39.	NO	YES
Pass the Vibration Test : 73.1 After vibration in accordance with 73.2, an alarm shall not false alarm or be adversely damaged. Sensitivity measurements shall comply with the Sensitivity Test, Section 39. 73.2 Two alarms, one at maximum and one at minimum sensitivity, are to be subjected to vibration for 120 hours in accordance with the Vibration Test, Section 56. Sensitivity measurements are to be recorded before and after the test.	NO	YES
Pass the Contamination Test (Cooking By-Products) : 74.1 After exposure in accordance with 74.2 – 74.5, an alarm shall not false alarm or otherwise be adversely affected. Sensitivity measurements following the exposure shall comply with the Sensitivity Test, Section 39. 74.2 Two samples are to be subjected to the vaporization of a mixture of 50 grams of animal fat (lard), 50 grams of vegetable fats, and 100 grams of beef gravy. The mixture is to be placed in an 8-inch (203-mm) diameter aluminum plate that is heated on an 8-1/2-inch (216-mm) diameter hotplate located on the bottom center of a galvanized sheet metal enclosure.	NO	YES
Comply with NFPA 1192 / RVIA Requirements	NO	YES