

# Inspection and Maintenance Instructions for S20 and UL 924 Photoluminescent Exit Signs

1. Check that all signs installed have the following test certification with the relevant Pass Criteria (PC):

**a. UV Resistance**

ASTM G155-04 Cycle 1 1000hrs, Standard Practice for Operating Xenon Arc Light Apparatus for Exposure of Non-metallic Materials.

PC – Loss in luminance after exposure < 10%

**b. Salt Spray Resistance**

ASTM B117-97 500hrs, Standard Practice for Operating Salt Spray (Fog) Apparatus.

PC – Slight corrosion build up along scribes, no blistering or filiform growth along scribes.

**c. Washability**

ASTM D4828-94(2003), Standard Test Methods for Practical Washability of Organic Coatings.

PC – crayon, pen, 3M soil: all rating 10, being complete removal of soilant.

**d. Rate of Burning**

ASTM D635-03, Standard Test Method for Rate of Burning and/or Extent and Time of Burning of Plastics in a Horizontal Position.

PC – Time of burn 0 seconds, does not burn.

**e. Surface Flammability**

ASTM E162-02, Standard Test Method for Surface Flammability of Materials Using a Radiant Heat Energy Source.

PC – Flame spread index 7.6, ignites with difficulty.

**f. Toxicity**

Bombardier Toxic Gas Generation Test SMP800-C.

PC - Pass

**g. Radioactivity**

ASTM D3648-2004, Standard Practices for the Measurement of Radioactivity.

PC – Pass

**h. Luminance / Visibility**

ASTM E2073-10 Standard Test Method for Photopic Luminance of Photoluminescent (Phosphorescent) Markings.

PC - 30mcd/m<sup>2</sup> after 10 minutes and 5mcd/m<sup>2</sup> after 90 minutes of darkness.

**OR**

UL 924 Standard for Emergency Lighting and Power Equipment.

PC - visible from at least 50 feet (15.24 metres) after 90 minutes of darkness.

**i. High Temperature Curing**

Independently tested by placing 3 samples in an oven at 150°C for 20 minutes and then examining the samples after removing from the oven.

PC – the samples shall have no shrinkage, delamination, distortion, or yellowing.

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2. Complete the following inspections to ensure ongoing compliance with relevant building or fire code.

Action	Complete
Installation checked against original plans (where available).	
All signs are still configured as at installation and there is no material damage to any of the signs.	
All signs are clean from general dust build up and any other specific obscuring deposits.	
All signs are clearly visible and have not been covered up.	
Minimum illumination of 54 lux is provided continuously for all signs.	
All automated lighting control systems are operational as per design.	

The above checks should be carried out regularly and at least once every 12 months to ensure reliability of the system in case of fire or other emergency.

Any repairs or replacements required should be carried out immediately. A log of all inspections including results and any corrective measures taken should be recorded and kept on the premises for inspection by the building management and fire department. The log should contain the inspection dates and printed name and signature of the person performing the inspection.

In situations where signs are likely to become dirty, it is recommended that frequent checks and cleaning are done.