

## **Safescape® Specification Model DGSR001 Standard Unit**

### **1.0 Design**

The Safescape® emergency egress device works in the following way:

The unit employs an 'actuator' which is a small pin and cylinder device. The 'actuator' produces a force which acts on the pin and pushes it through the glass window. By this action the window is broken into many small parts. The 'actuator' is electrically powered and the power is supplied by a long life battery. All components are housed within an aluminium enclosure.



### **1.1 Type of glass**

Safescape® is designed to break standard transport double glazed, toughened glass windows to BS 857.

### **1.2 Easy to use**

To make operation easy a simple push button is employed to initiate the window breaking. The option of a thin polyester film applied to the whole window is used to:

- 1) contain the small glass fragments produced.
- 2) to aid personnel in pushing the window out in one piece.
- 3) protect personnel from glass.

### **1.3 Signage**

Signage will be provided which demonstrates the steps necessary to operate the system, both with graphics symbols and as text. The steps are:

- 1) Break the break glass panel over the button
- 2) Press the firing button.
- 3) Push out the window

### **1.4 Illumination**

The firing button is sign written with the word **<push>** printed in luminous ink, as is the area surrounding the button.

## 1.5 Positioning on the window

The unit can be positioned anywhere on the window, however access to the unit must be given due consideration. Positioning should be clear of curtains, seats and other obstructions. A position close to the window frame is recommended.

## 1.6 Tamper devices

One type of tamper evident device is fitted which is designed to reduce malicious operation:

- 1) Break glass cover over the firing button.

## 1.7 Battery life

A battery powers the unit and is dedicated to firing the actuator. It has a shelf life of 10 years.

## 2.0 Operation

The method of operation of the Safescape® unit is as follows:

- 1) Break the break glass panel over the button.
- 2) Press the firing button. By pushing the button the actuator will fire instantaneously and break the window.
- 3) Push out the window, by doing this an emergency egress is created.

## 3.0 Installation and Maintenance

The device is designed to be fitted quickly and with the minimum of tools, by a semi skilled technician. The unit will be bonded to the designated escape window using an acrylic double-sided tape. This requires that the window is cleaned using a preparatory glass cleaner. Depending on the type of vehicle the typical installation time is approximately 15 minutes.

## 3.1 Window film fitment

The window film is similar to products already used on the railways as sacrificial coatings and must be fitted by trained fitters. The area in which the Safescape® unit will be bonded must not be filmed.



### 3.2 Circuit/battery testing

Continuity of the firing circuit can be tested by removing the front cover. This is fixed down by security screws and requires special tools to remove it. By removing the front cover access is given to a test button. When depressed a LED will illuminate to indicate that the power is present and the continuity of the circuit is good.

The battery requires replacing every 10 years. It is situated inside the enclosure, requires that the chassis and battery are removed as one unit and replaced with a new unit.

### 3.3 De-activation switch

A micro switch will isolate the firing button if the cover is removed from the device. This is designed to stop accidental firing when the cover is removed.

### 3.4 Maintenance after the device has been fired

The entire unit must be replaced.

## Technical Specification

### Physical and Environmental

Size	120 x 120 x 47 mm (4.72 x 4.72 x 1.85 inches)
Weight	800 gms (28.21 ounces)
Enclosure	Cast aluminium
Finish	Powder coating complies to BS 476 pt 7 & BS 476 pt 7 Class 0 Rating
Paint finish colour	R6029 80% gloss (green)
Operating Temperature	-20oC to +85oC (-4oF to +185oF)
Weather Proofing	IP65

### Functional

Actuator pin deployment time	5 ms
Actuator output force	2 KN
Break Panel	Safeglass
Power Supply	6 volts
Battery Life	10 years

### Bonding Method

Acrylic Tape	3m 4941
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