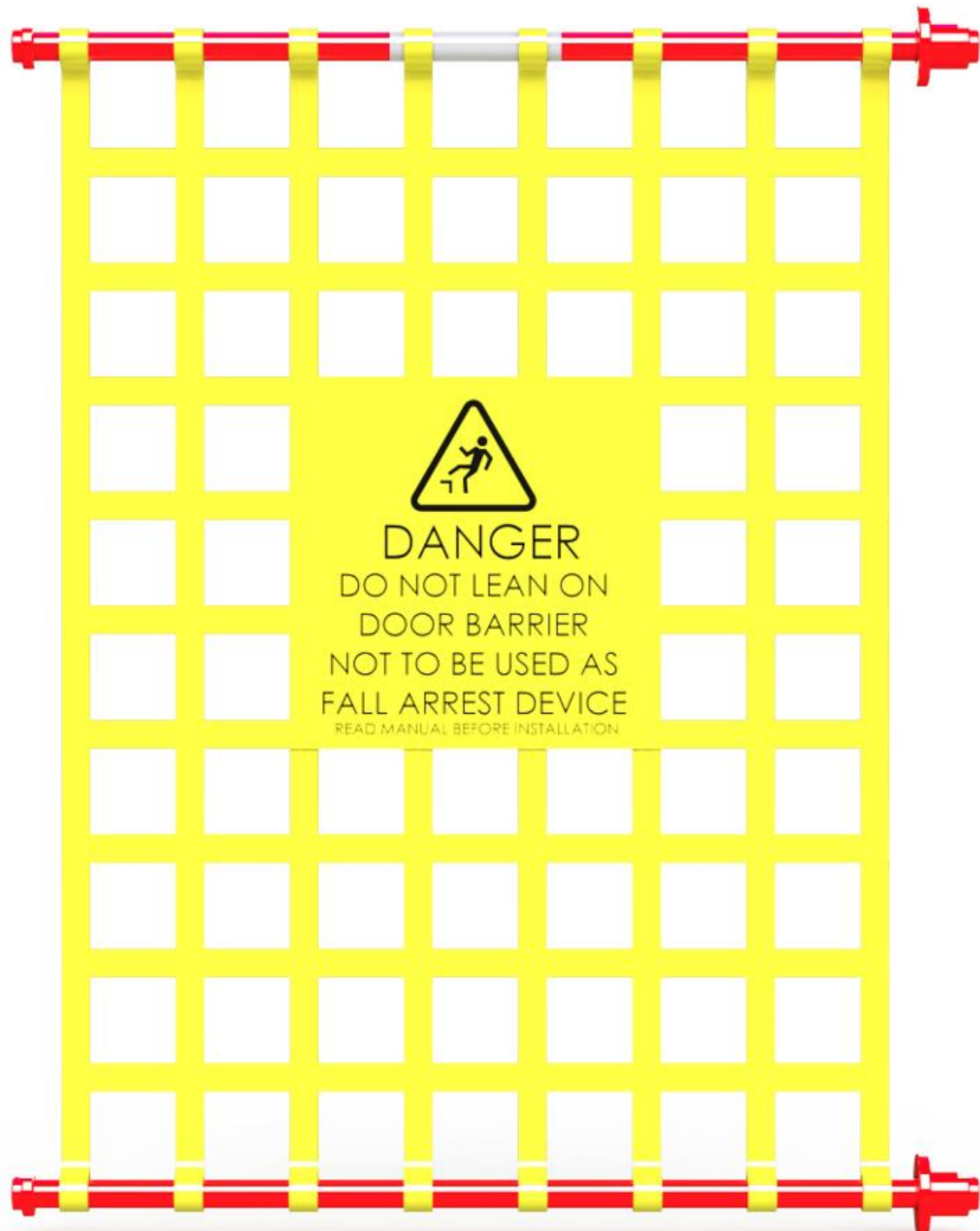


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AIRCRAFT DOOR BARRIER NETS
EMBRAER E170/E190

COMPONENT MAINTENANCE
MANUAL

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AIRCRAFT DOOR BARRIER NET, EMBRAER E170/E190.

COMPONENT MAINTENANCE MANUAL

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1. GENERAL

1.1 Introduction

This document details installation, removal, storage, and inspection for Aircraft Door Barrier Nets, used specifically for Embraer E170/E190 Aircrafts. The door barrier nets are fitted to the Aircraft whilst maintenance work is carried-out in Aircraft Hangers to provide a visual fall hazard warning sign to maintenance personnel.

1.2 Symbol Explanation

Remarks regarding the safety of persons and the aircraft barrier door nets are marked by special symbols. These remarks are to be absolutely observed to avoid accidents and material damage.



ATTENTION!

- points to a potentially dangerous situation, which can cause minor or slight injuries if it is not avoided.
- points to a potentially dangerous situation, which can cause property damage if it is not avoided.



REMARK!

- Important notice for installation or functioning.



Note: The Aircraft Door Barrier Net is not designed OR intended for use as a safety device or as part of a fall arrest system and does not provide protection or prevention for personnel from falling off or into unprotected edges or door openings.

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2. TECHNICAL DESCRIPTION.

2.1 Installation details.

- 2.1.1 Four (4) Aircraft Door Barrier Nets are supplied to fit each door on an Embraer E170/E190 Aircraft. See figure 1 showing the aircraft layout and door positions.
- 2.1.2 Table 1 details the key, description, and part number for each door.
- 2.1.3 The nets can be supplied individually or as a set under Part No. 238CA29. See Table 1
- 2.1.4 The aircraft door barrier net is fitted to 4 off aircraft door brackets located around each aircraft door frame shown in Figure 1.
- 2.1.5 **No** tools are required to attach and remove the aircraft door barrier net.

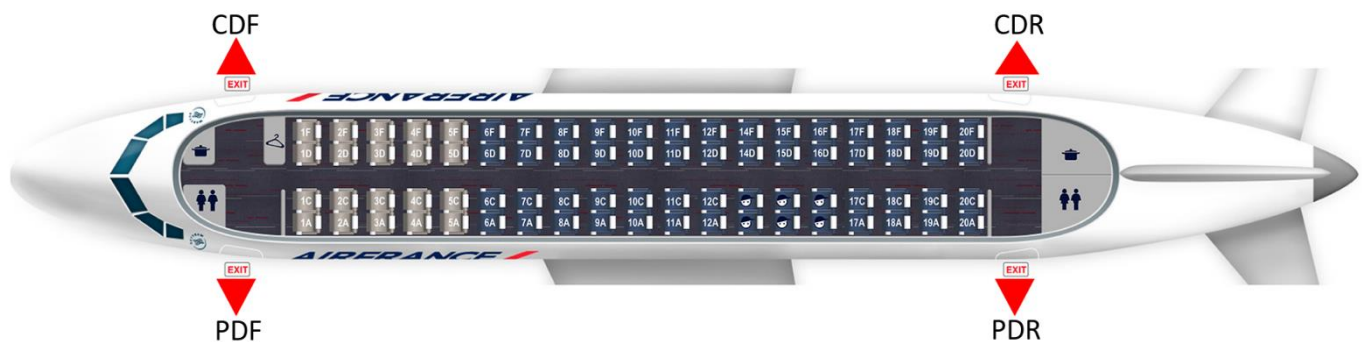


Figure 1. Embraer E170/E190 Aircraft Identification and Location.

Table 1. Embraer E170/E190 Aircraft Identification and Location.

EMBRAER E170/E190 (238CA29) BARRIER DOOR NETS SET		
Door Key (Refer to Figure 1)	Door Description	Part No
PDF	Passenger Entry Front Door	239CA29
CDF	Crew Entry Front Door	240CA29
PDR	Passenger Entry Rear Door	241CA29
CDR	Crew Entry Rear Door	242CA29



2.2 Construction

2.2.1 Figure 2 shows a general construction of the aircraft barrier door nets.

2.2.2 The Aircraft door barrier net consists of two aluminum tubes top and bottom with one side having two spring-loaded locators and two fixed locator pins the other side.

2.2.3 There are two Quick Release Pins on one side, one for each spring-loaded locator.

2.2.4 **Note:** Quick release Pins only on Part No. 240CA29 as shown in figure 3.

2.2.5 Polyester webbing is fixed between the aluminum tubes.

2.2.6 A label is affixed on the top aluminum tube that identifies the part number, description, and the aircraft type.

2.2.7 A warning sign is fitted to the webbing net.

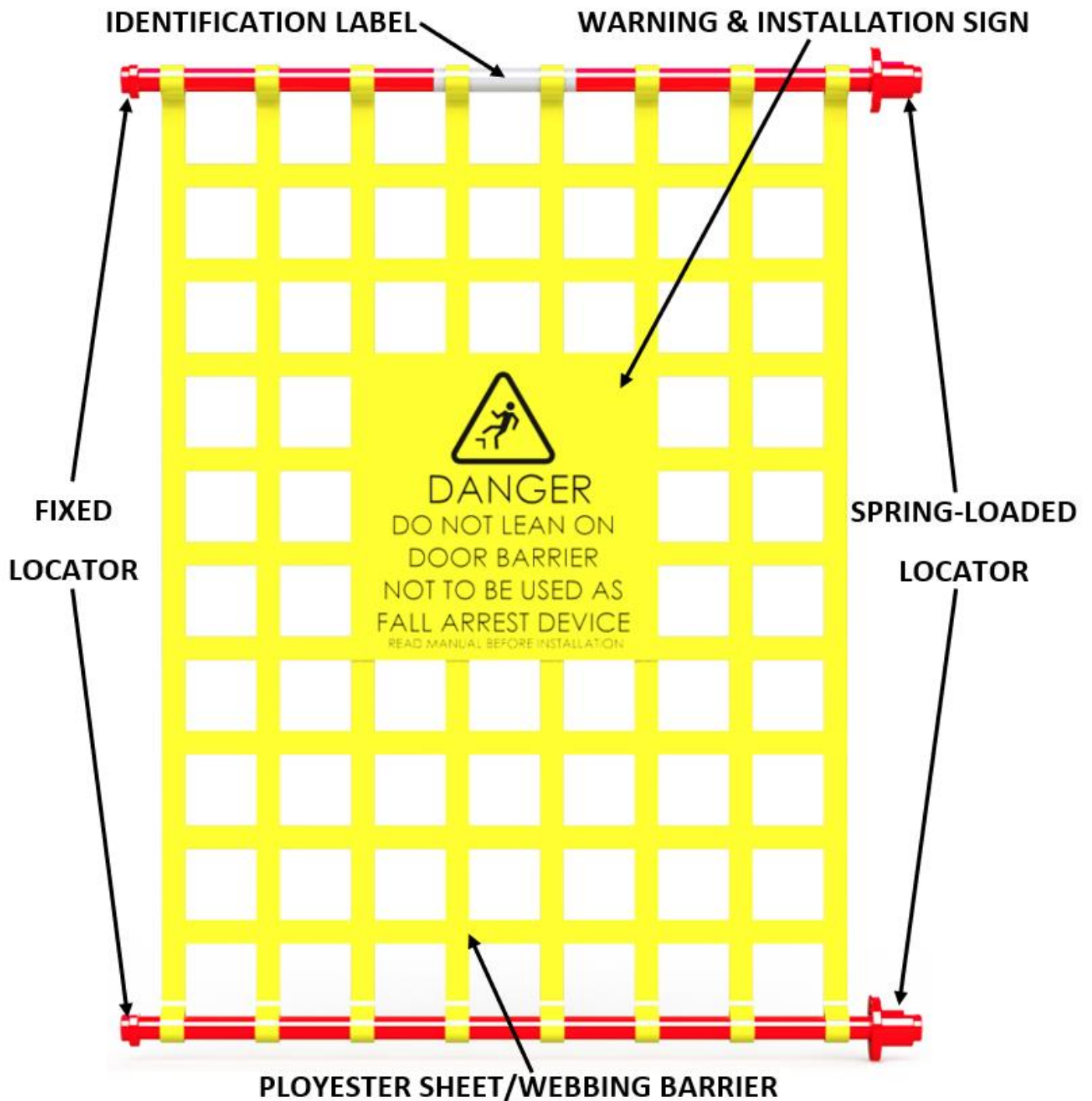


Figure 2. Aircraft Door Barrier Net.

Note: This is for Part Numbers 239CA29, 241CA39, and 242CA39. See figure 3 for Part No. 240CA29 net with Quick Release Locking Pins.

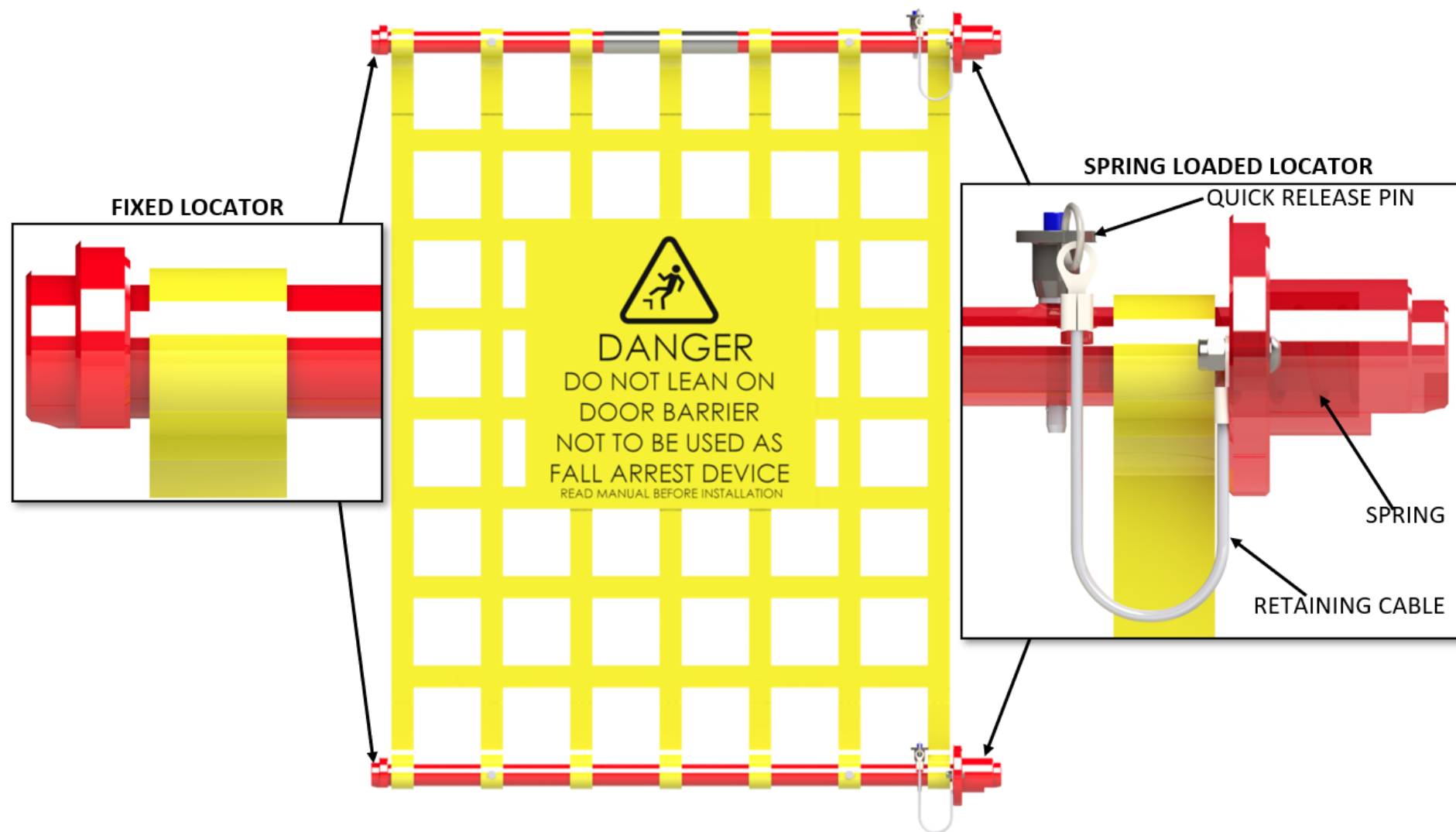


Figure 3. Part No. 240CA29 Aircraft Door Barrier Net

2.3 Markings

2.3.1 Figure 4 below shows the installation details, warning sign and identification label on the Aircraft Barrier Door Net.



Figure 4. Markings.

2.4 Safety.

2.4.1 In an emergency, the Aircraft Door Barrier Net can be removed from the Aircraft door frame without the use of tools.

2.4.2 Do not lean on the door barrier. It must **not** be used as a fall arrest device.



Note: The Aircraft Door Barrier Net is not designed OR intended for use as a safety device or as part of a fall arrest system and does not provide protection or prevention for personal from falling off or into unprotected edges or door openings.

3. INSPECTION.

3.1 Inspection before each use:

- 3.1.1 Inspect each Aircraft Door barrier door net for visible defects, that labels and cuts to webbing marking are in good condition.
- 3.1.2 Check that the sprung loaded locator's mechanism is in good working condition.

3.2 In-service inspections:

- 3.2.1 Inspect each of the Aircraft door barrier nets, polyester webbing, aluminum tubing and sprung loaded fittings for defects and ensure that all labels and markings are in good condition.
- 3.2.2 If any doubts exist, remove the product from service, and seek further advice or replacement from the manufacturer.
- 3.2.3 Signs of defects or damage may include Local abrasion or cuts from a sharp edge or similar, Damage at seam or stitching, Chemical attack, Deformed or otherwise damaged fittings, aluminum tubing, sprung loaded fittings.

3.3 Periodic inspection:

- 3.3.1 Each aircraft barrier door net must be inspected by a competent person, once a year. If any doubts exist, the product must be removed from service and seek advice or replacement from the manufacturer.
- 3.3.2 Check condition of the **Polyester webbing** and **stitching** for defects and damage i.e., scaring, abrasion, flaring and cuts Refer to figure 5 & 6.
- 3.3.3 Check condition of the identification label, installation detail and warning sign.
- 3.3.4 Check condition of the **spring-loaded locators** and check the mechanism and movement.
- 3.3.5 Check conditions and operations of **quick release pins** where fitted.
- 3.3.6 Check condition of the **retaining cable** for defects and damage. Ensure that retaining cable is secure attached to both quick release pins and spring-loaded locators.
- 3.3.7 Check condition of the **aluminum tubing** for defects and damage.
- 3.3.8 Check condition of the **slotted spring pins** for defects and damage.
- 3.3.9 For safe storage of the product refer to paragraph 4.4.

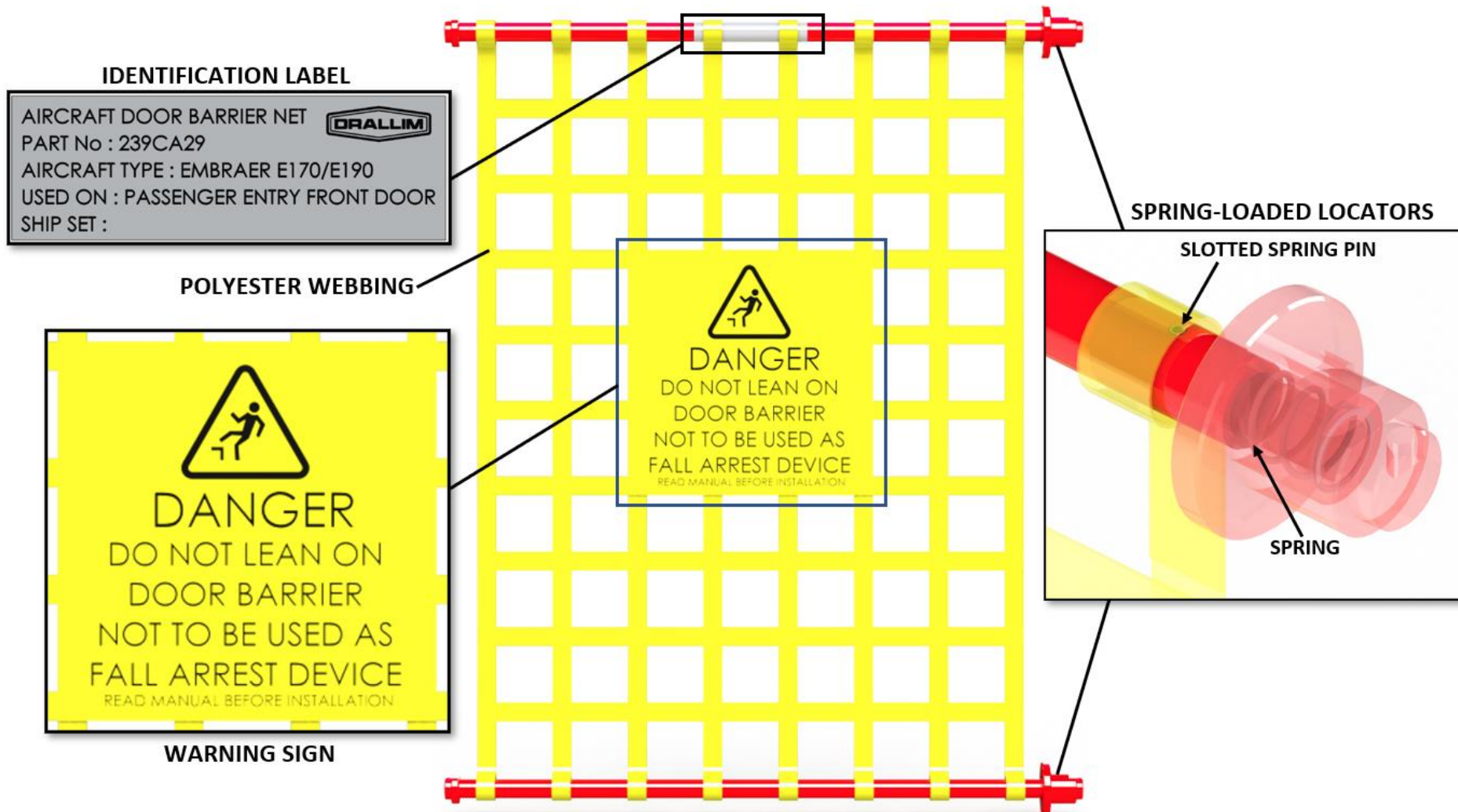


Figure 5. 239CA29, 241CA29, & 242CA29 Inspection.

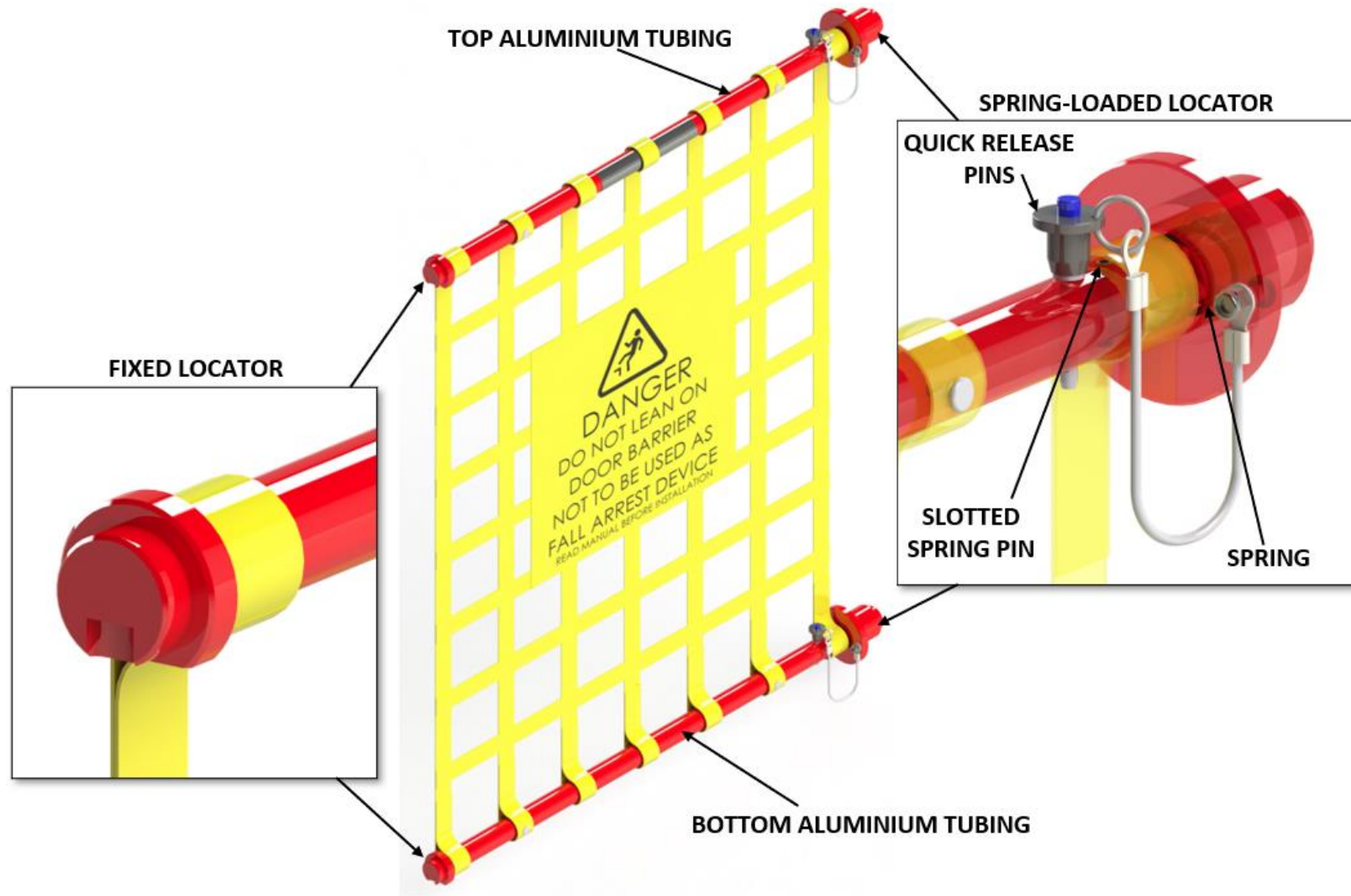


Figure 6. 240CA29 Inspection.

4. INSTALLATION, REMOVAL, MAINTENANCE & STORAGE.

4.1 Installation



Always carry out visual checks on the Aircraft door barrier net for any defects before each use, as stated in paragraph Inspection Before Each Use 3.1.

- 4.1.1 Firstly, make sure that the warning sign is upright, facing towards the inside of the aircraft and clearly visible to all personnel.
- 4.1.2 Please refer to figures 7 & 8 showing the door frame brackets and locators in position.
- 4.1.3 Starting from the top aluminum tubing, push the top spring-loaded pin inwards. Insert/slide top locator pin and top spring-loaded pin into both ends of the top aircraft door frame brackets.
- 4.1.4 Orientate the locators so the flat is at the bottom see figure 7.
- 4.1.5 Make sure that both ends of the top aluminum tubing are fully engaged and securely in position.
- 4.1.6 Push inwards the bottom spring-loaded pin of the bottom aluminum tubing.
- 4.1.7 Insert/slide both ends of the bottom locator pin and bottom spring-pin loaded pin into the bottom aircraft door brackets.
- 4.1.8 Make sure that both ends of the top aluminum tubing are fully engaged securely in position.
- 4.1.9 Where fitted, install the Quick Release Pin into place on the top and bottom aluminum tubes.
- 4.1.10 With Quick Release Pins fitted it should not be possible to remove the top and bottom aluminum tubes.



Figure 7. Locator in Position & Orientation.



Figure 8. Door Frame Brackets & Locators Positions.

4.2 Removal.

- 4.2.1 To remove the door barrier from the aircraft door frame. Start by removing the aircraft door barrier net from the bottom door brackets see figure 9 & 10.
- 4.2.2 If fitted remove the Quick Release Pin from the aluminum tube and push the sprung loaded pin of the aluminum tubing inwards and remove the door frame bracket. See figure 9 & 10.
- 4.2.3 Repeat for removal of the top tubing.
- 4.2.4 For safe storage of the product refer to paragraph 4.4.

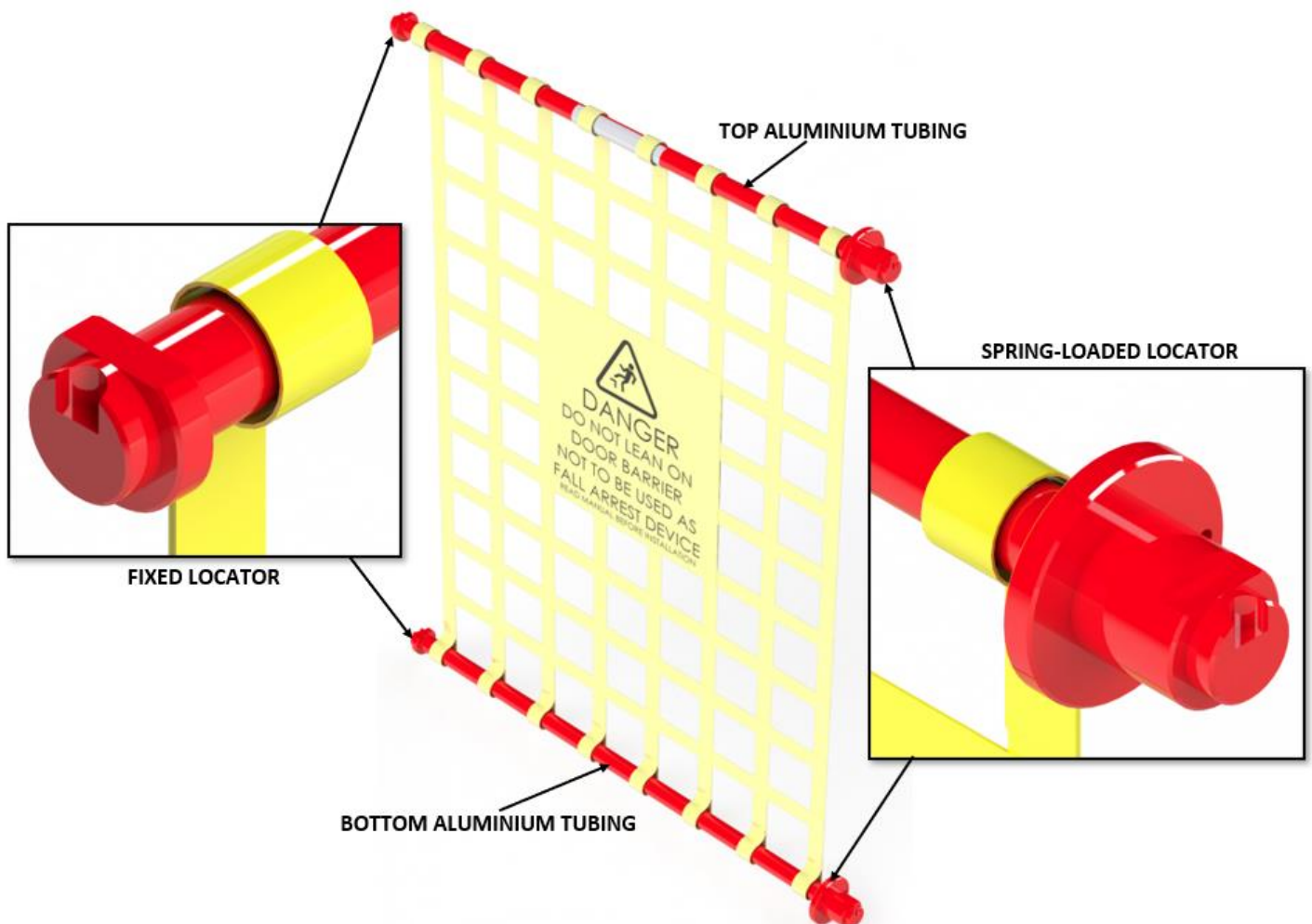


Figure 9. 239CA29, 241CA29, & 242CA39 Removal.

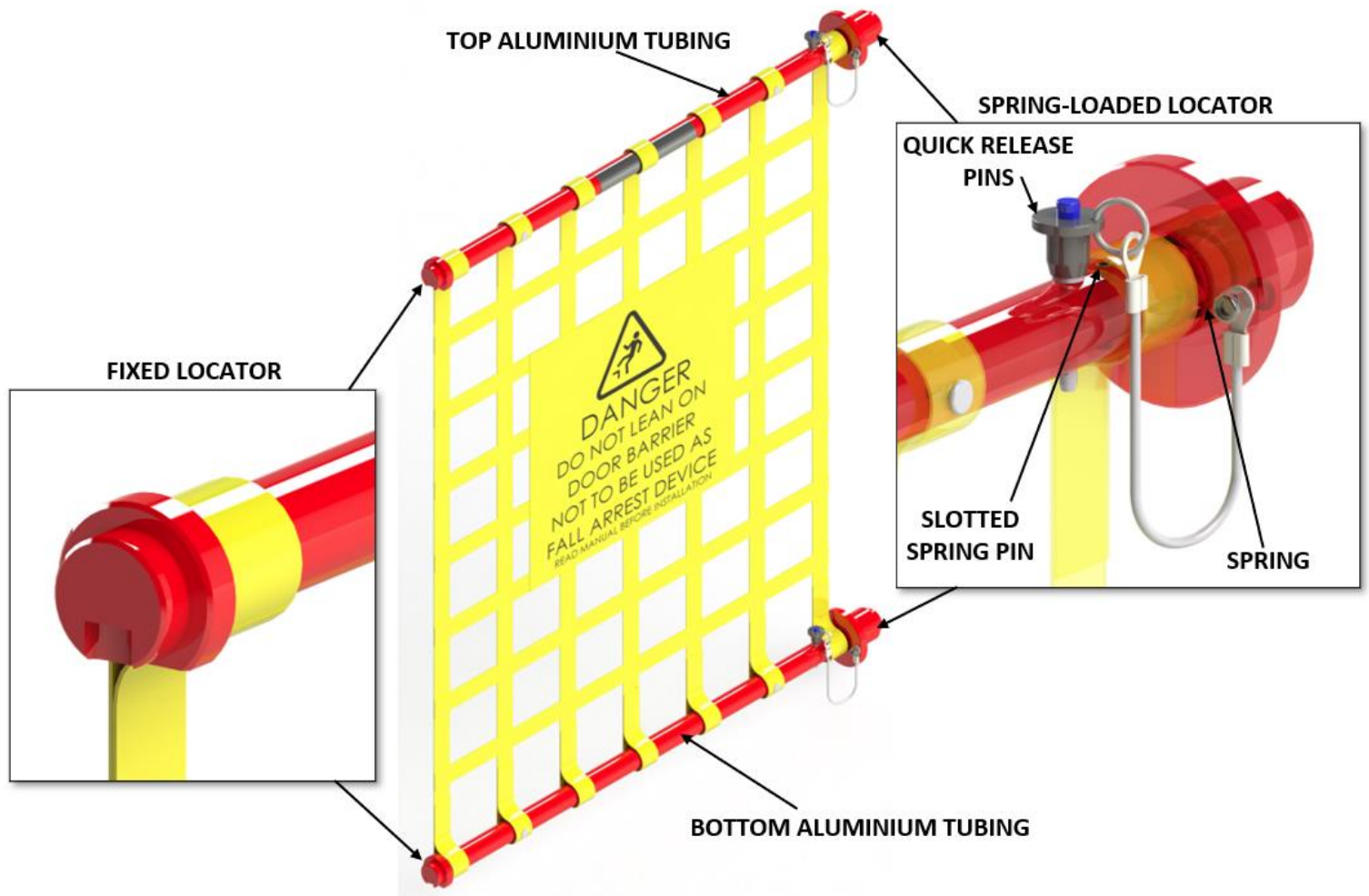


Figure 10. 240CA29 Removal.

4.3 Maintenance



In addition to regular visual inspections, maintenance work must be carried out once a year. If any doubts exist on the condition of the product, the product must be removed from service and contact the manufacturer for advice or replacement.

- 4.3.1 The only maintenance that can be carried out is cleaning of the Webbing, Warning Sign, and Aluminum fittings.
- 4.3.2 Use clean water and cloth to wipe surfaces and remove dirt.
- 4.3.3 Ensure the warning sign is clearly visible.

4.4 Storage.

- 4.4.1 The storage area should be dry, clean, and free of any contaminants.
- 4.4.2 **Avoid** prolonged exposure to direct sunlight (UV radiation), this may have an adverse effect on the polyester webbing.
- 4.4.3 **Do not** expose the barrier door nets to heat sources.
- 4.4.4 **Avoid** direct exposure to chemicals such as strong Alkalis and Acids.