



AIRCRAFT DOOR BARRIER NET
EMERGENCY EXIT DOOR
AIRBUS A321
PART No. 504CA29
COMPONENT MAINTENANCE
MANUAL

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AIRCRAFT DOOR BARRIER NET, EMERGENCY EXIT DOOR, AIRBUS A321.

COMPONENT MAINTENANCE MANUAL

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GENERAL

1.1 Introduction

This document details installation, removal, storage, and inspection of an Aircraft Door Barrier Net, Emergency Exit Door, used specifically on the Airbus A321 Aircraft. It is 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 The Aircraft Door Barrier net is suitable to be fitted to the Emergency Exit Doors see figure 1, Forward Emergency Exit L, AFT Emergency Exit L, AFT Emergency Exit R and Forward Emergency Exit R highlighted in red.
- 2.1.2 The aircraft door barrier net is fitted to 4 off aircraft door brackets located around each aircraft door frame shown in Figure 1.
- 2.1.3 **No** tools are required to attach and remove the aircraft door barrier net.

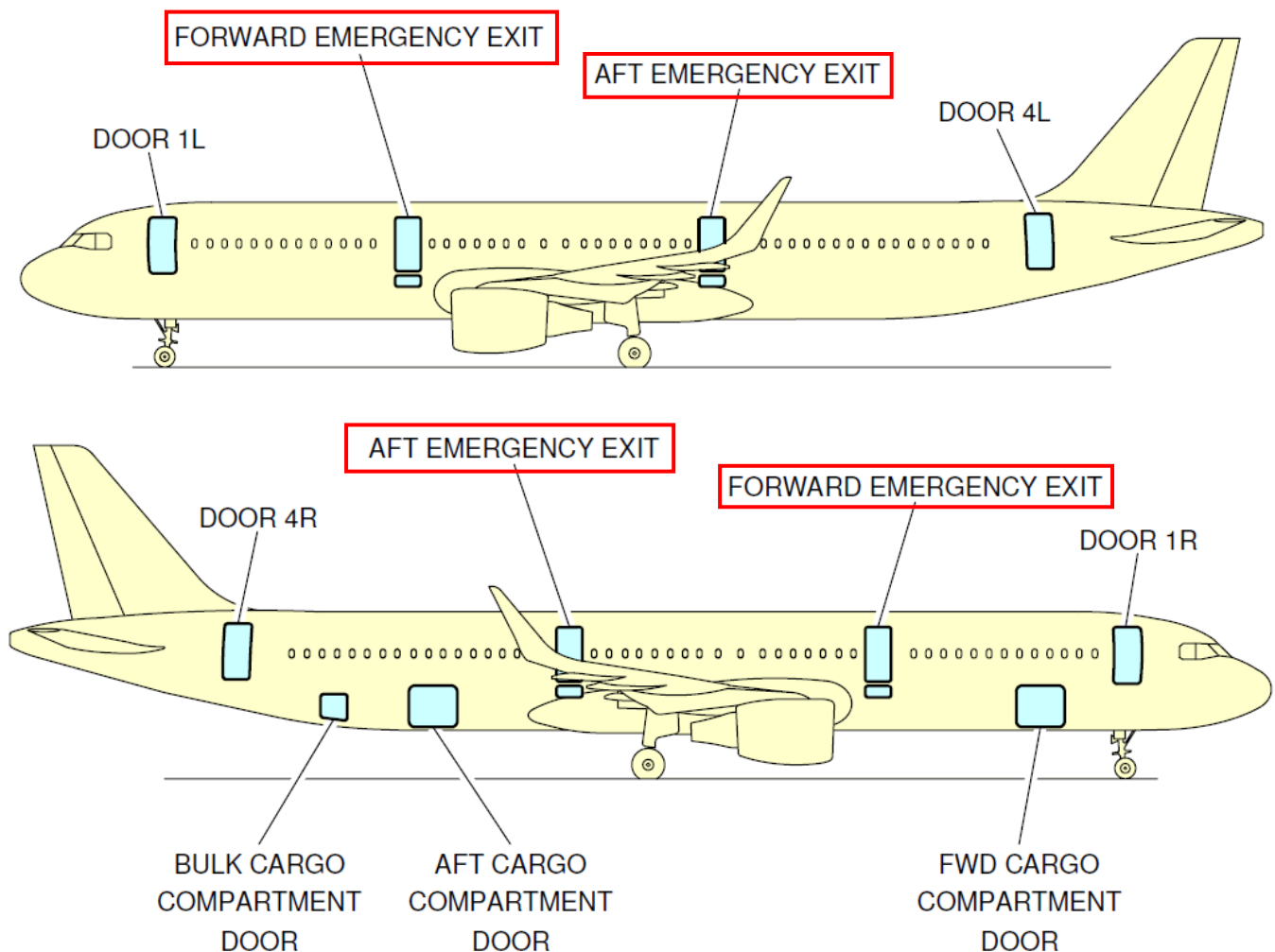


Figure 1 A321 Door Identification and Location.

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 locking pins on one side, one for each spring-loaded locator.
- 2.2.4 A PVC sheet attached with polyester webbing is fixed between the aluminum tubes.
- 2.2.5 A label is affixed on the PVC sheet that identifies the part number, description, and the aircraft type.
- 2.2.6 A warning sign and installation instruction are printed on the PVC sheet.

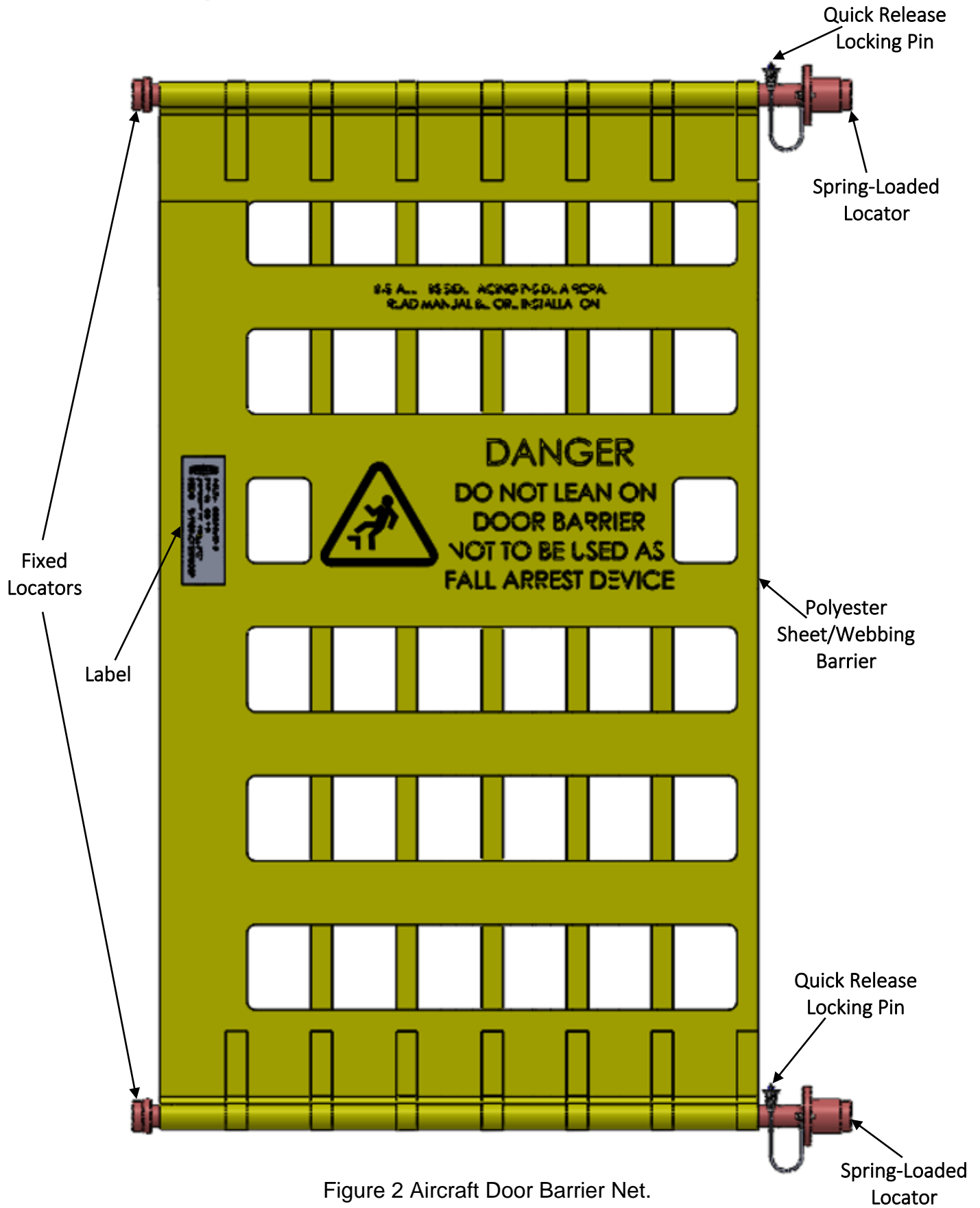


Figure 2 Aircraft Door Barrier Net.

2.3 Markings

- 2.3.1 Figure 3 below shows the installation details, warning sign and identification label on the Aircraft Barrier Door Net.



Figure 3 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 personnel 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 PVC sheet of the Aircraft door barrier net, 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 **PVC Sheet, Polyester webbing** and **stitching** for defects and damage i.e., scaring, abrasion, flaring and cuts Refer to figure 4.
- 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 quick release pins**. Check the mechanism and movement.
- 3.3.5 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.
- 3.3.6 Check condition of the **aluminum tubing** for defects and damage.
- 3.3.7 Check condition of the **slotted spring pins** for defects and damage.
- 3.3.8 For safe storage of the product refer to paragraph 4.4.



Note: Always follow safe manual handling techniques and practices to avoid risk to personnel during handling operations.

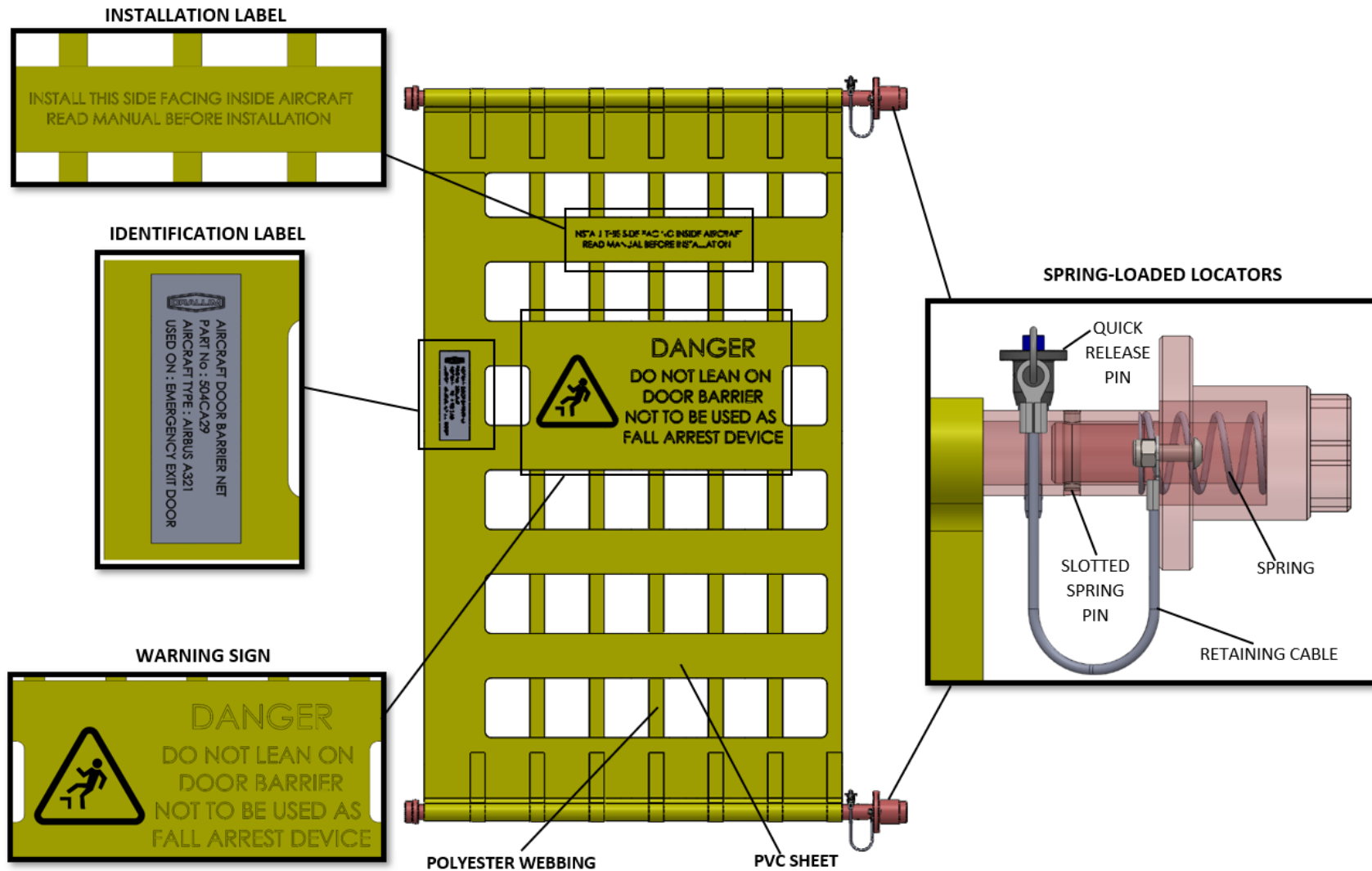


Figure 4 Inspection Diagram

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. As shown in figure 2.
- 4.1.2 Start by fitting to the top door brackets.
- 4.1.3 Press Quick Release Pin Release Button and remove the pin from the top tube hole as shown in figure 5.

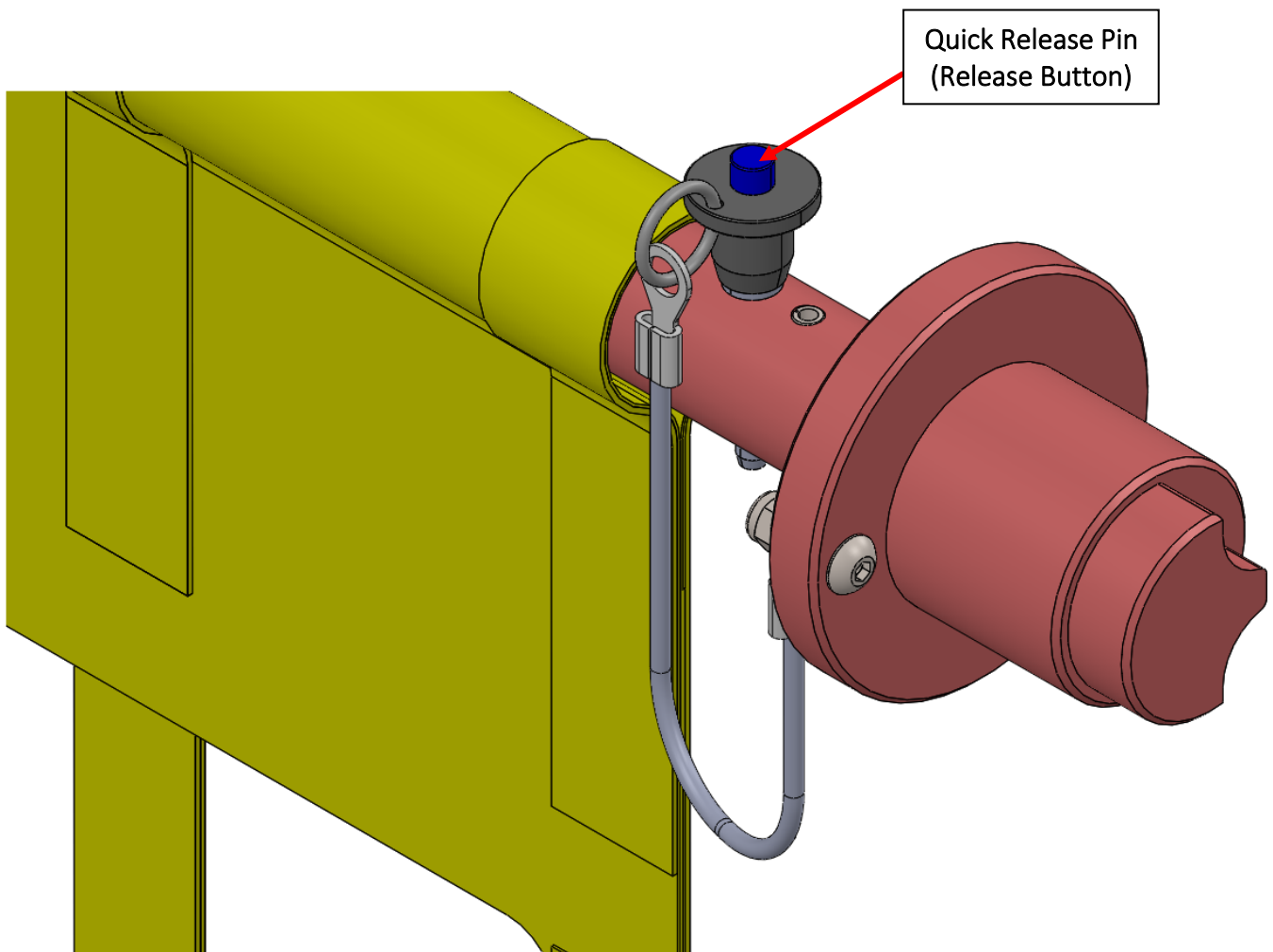


Figure 5. Top Locking Pin.

- 4.1.4 Firstly, locate the top fixed locator into the top door bracket, shown in figure 6.

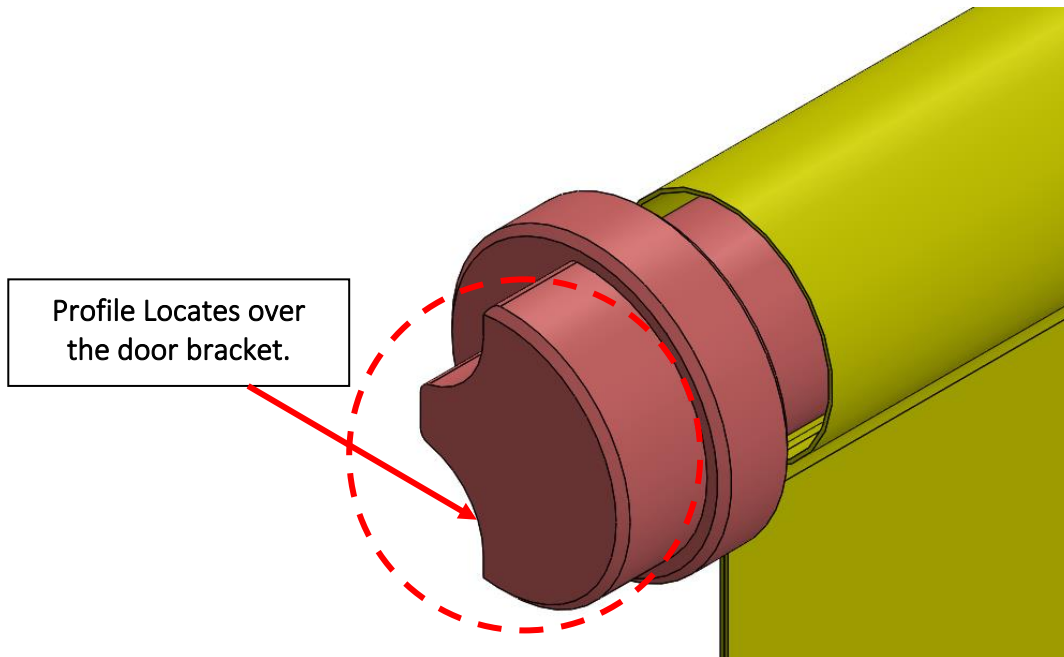


Figure 6 Top Fixed Locator.

- 4.1.5 The top fixed locator fits into the door bracket area highlighted in figure 7.
- 4.1.6 The profile on the top fixed locator locates in the orientation as shown in figure 6 & 7.

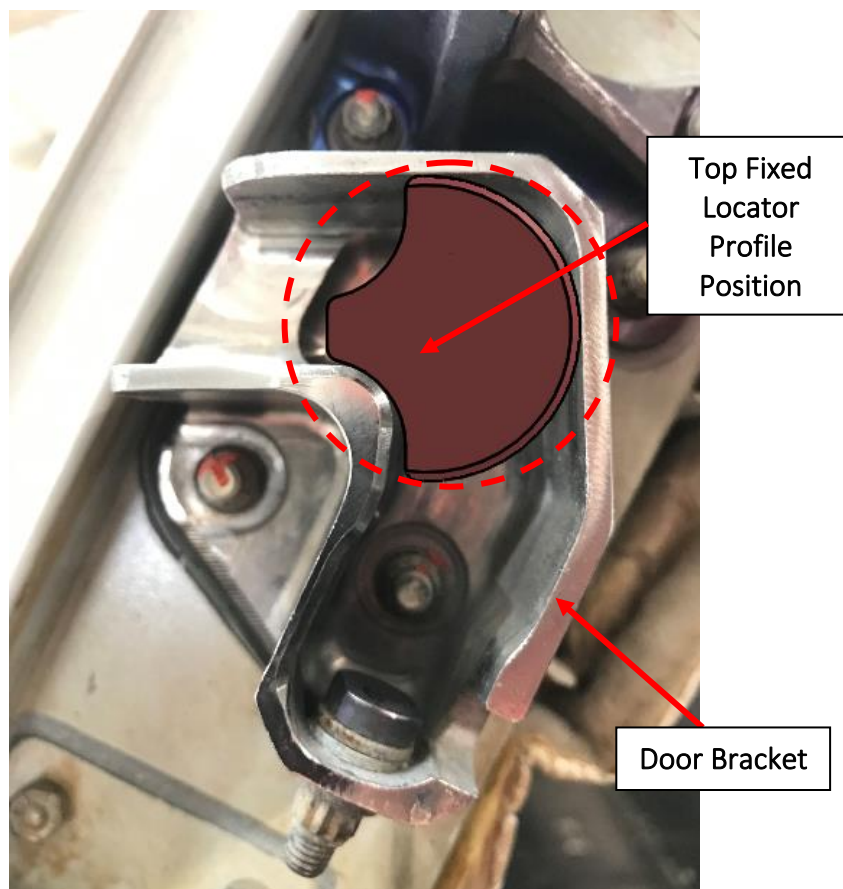


Figure 7 Top Door bracket.

- 4.1.7 Push the fixed top locator into the top door bracket as shown in figure 8.



Figure 8 Fixed Locator in position.

- 4.1.8 Locate the top Spring-Loaded Top Locator into the door bracket on the other side of the door frame, shown in figure 9.



Figure 9 Sprung-Loaded Locator

- 4.1.9 The Top Sprung-Loaded Locator fits into the Top Door Bracket area highlighted in figure 10.
- 4.1.10 The profile on the Top Sprung-Loaded Locator locates over the Door Bracket position shown in figure 10 & 11.

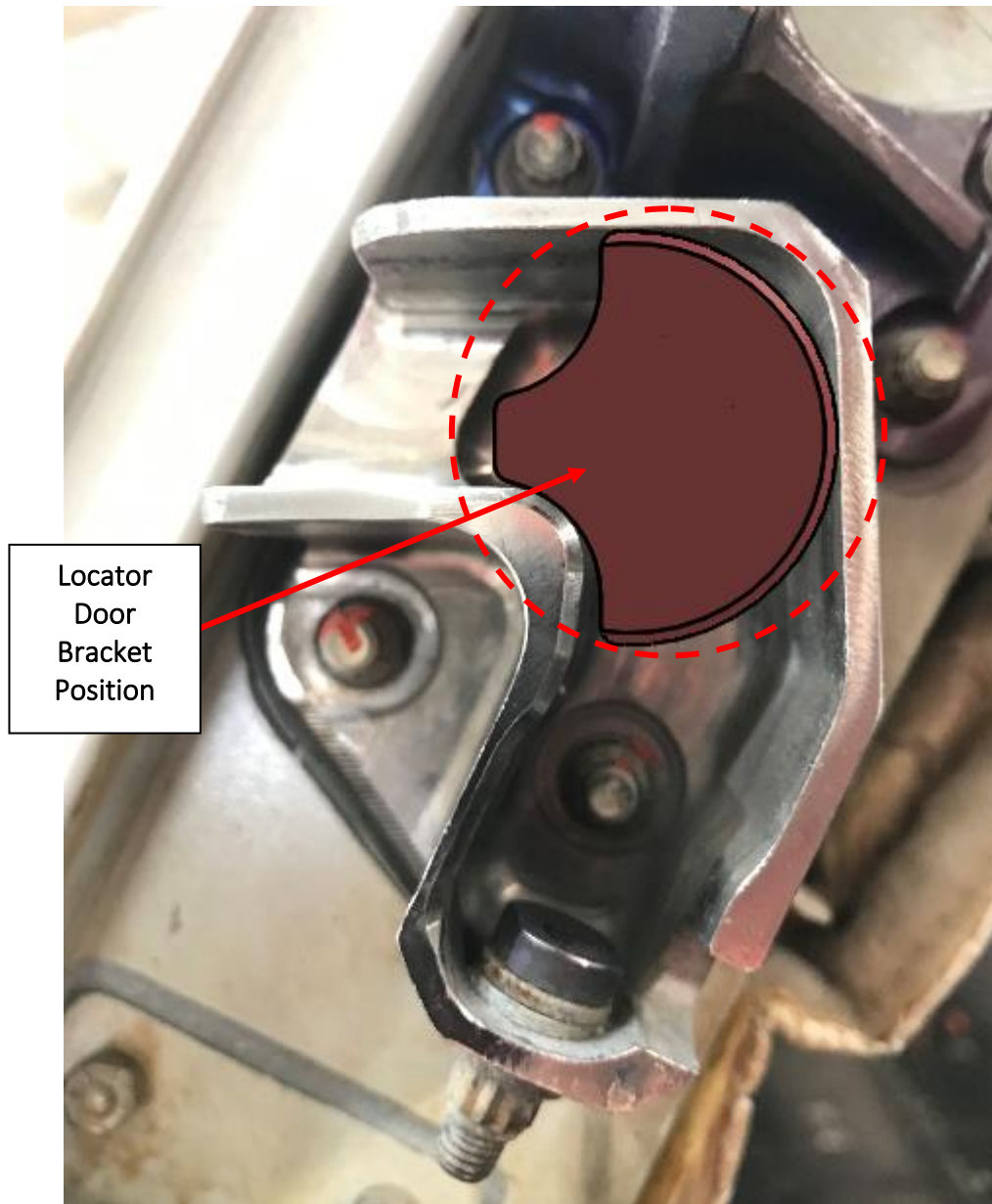


Figure 10 Top Door Bracket.

4.1.11 Push the Top Spring-Loaded Locator into the Top Door Bracket as shown in figure 11.

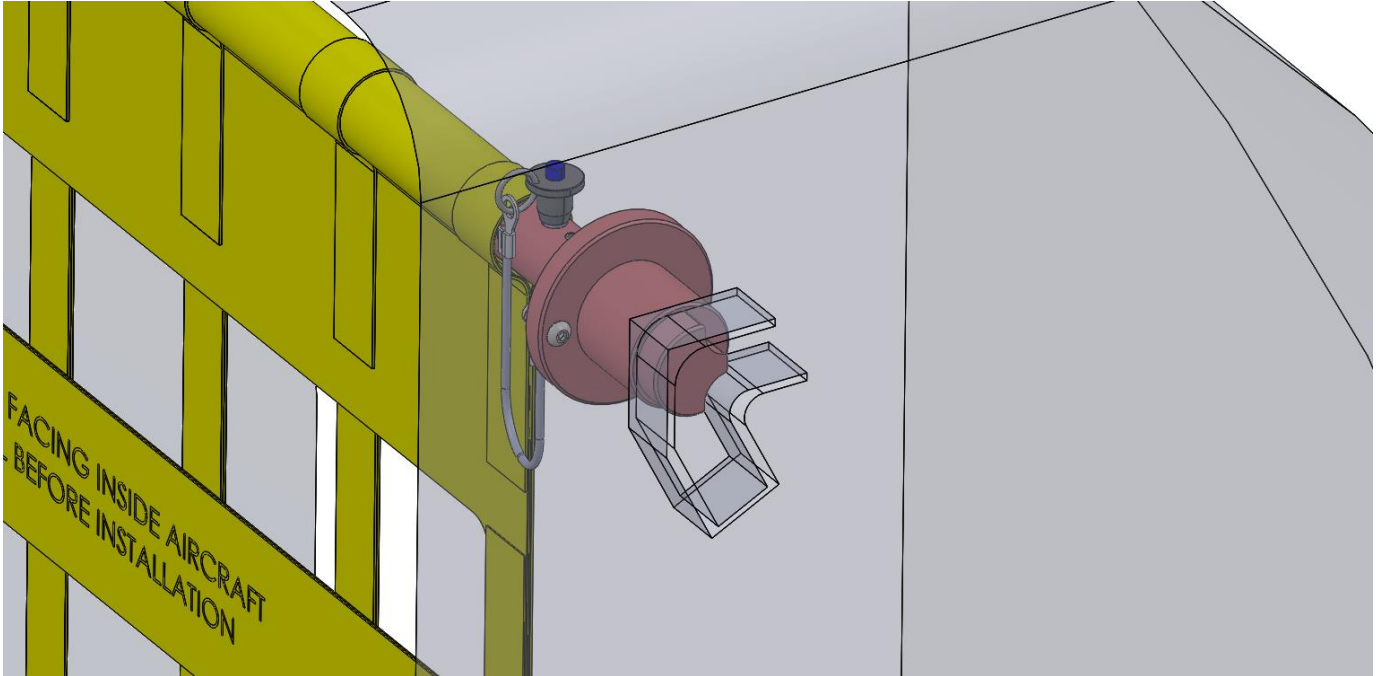


Figure 11 Sprung-Loaded Locator in position.

- 4.1.12 Press the button on the Quick Release pin to allow it to be fitted to the hole on the top tube.
- 4.1.13 With the button released the pin should not be able to be removed see figure 12.
- 4.1.14 Make sure that both top locators are fully engaged into the door brackets.
- 4.1.15 With the locking pin fitted, it should not be possible for the top locators to be removed from the door brackets.

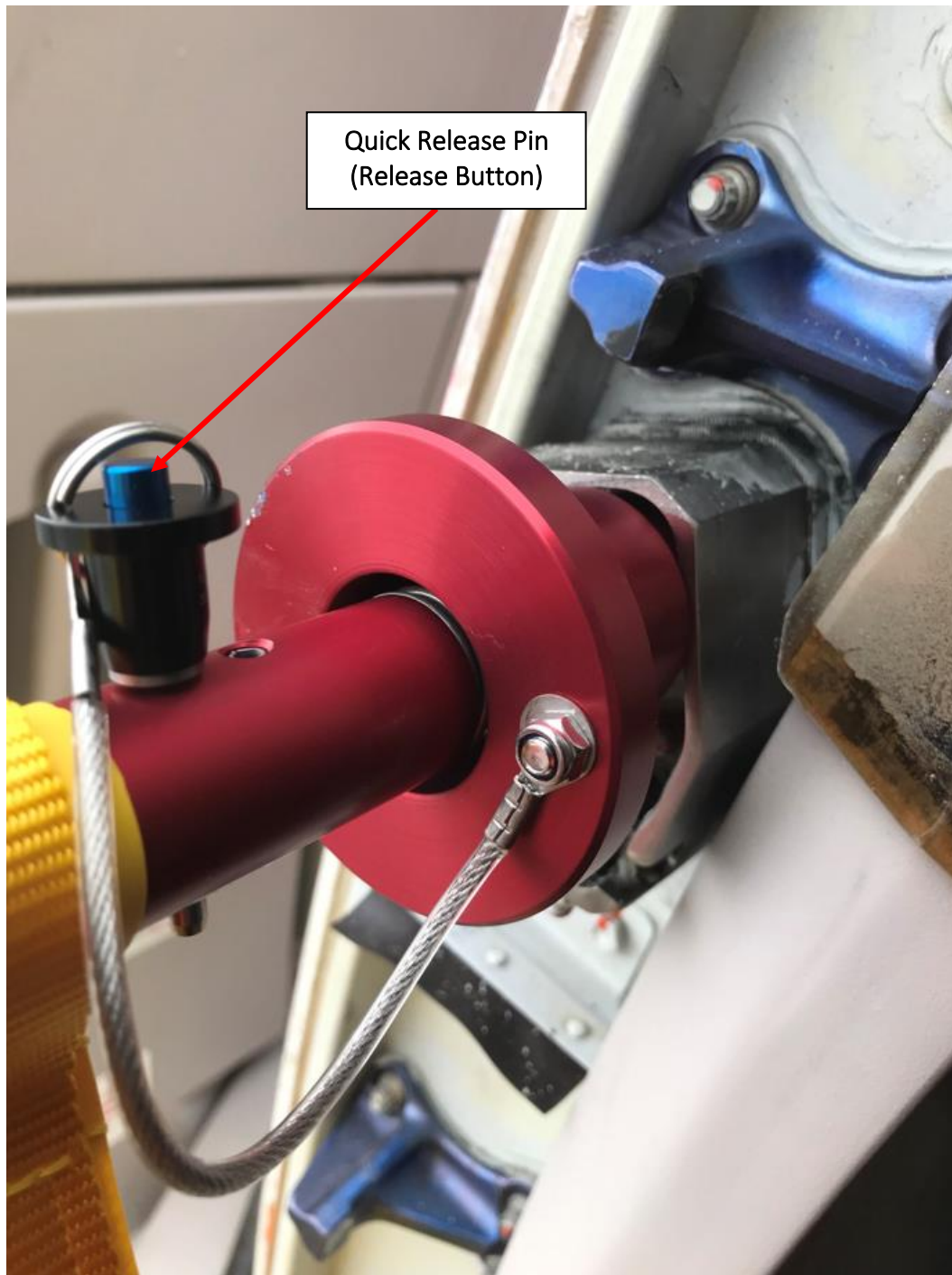


Figure 12 Top Spring-loaded and Locking Pin in position.

- 4.1.16 Press Quick Release Pin Release Button and remove from the bottom tube hole as shown in figure 13.

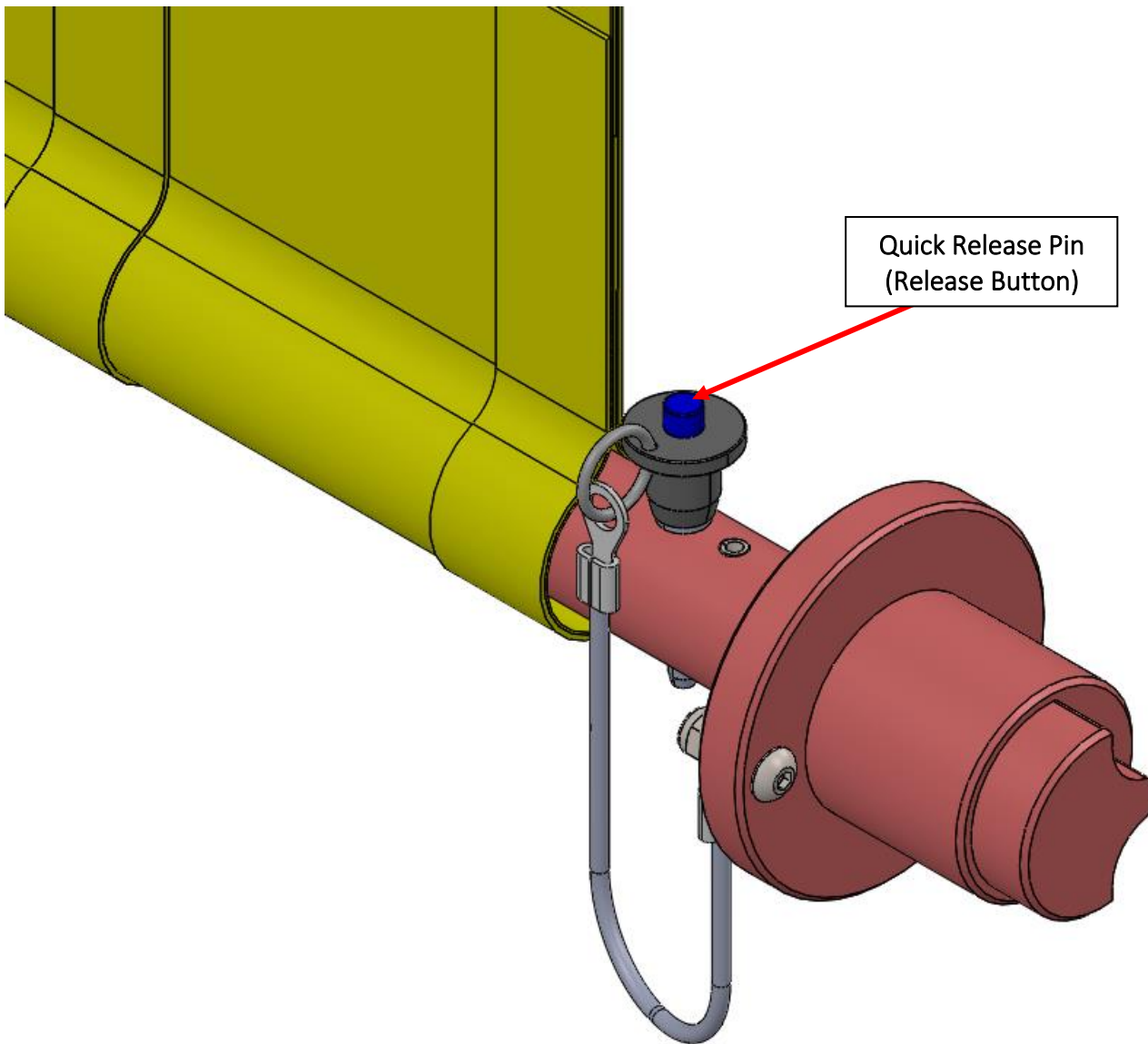


Figure 13 Bottom Quick Release Pin.

- 4.1.17 Locate the bottom fixed locator into the bottom door bracket, shown in figure 14.

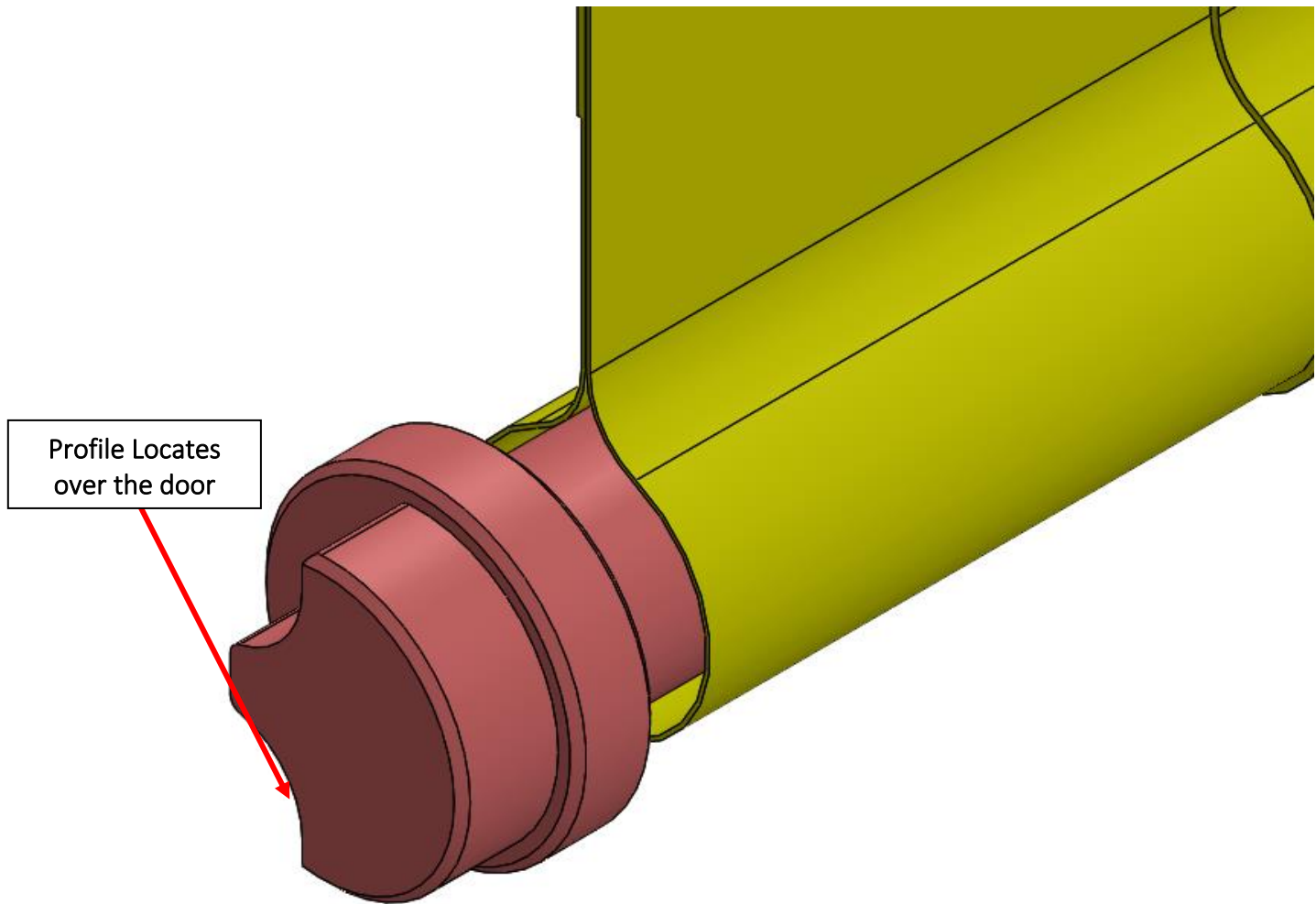


Figure 14 Fixed Bottom Locator.

4.1.18 The bottom fixed locator fits into the door bracket area highlighted in figure 15.

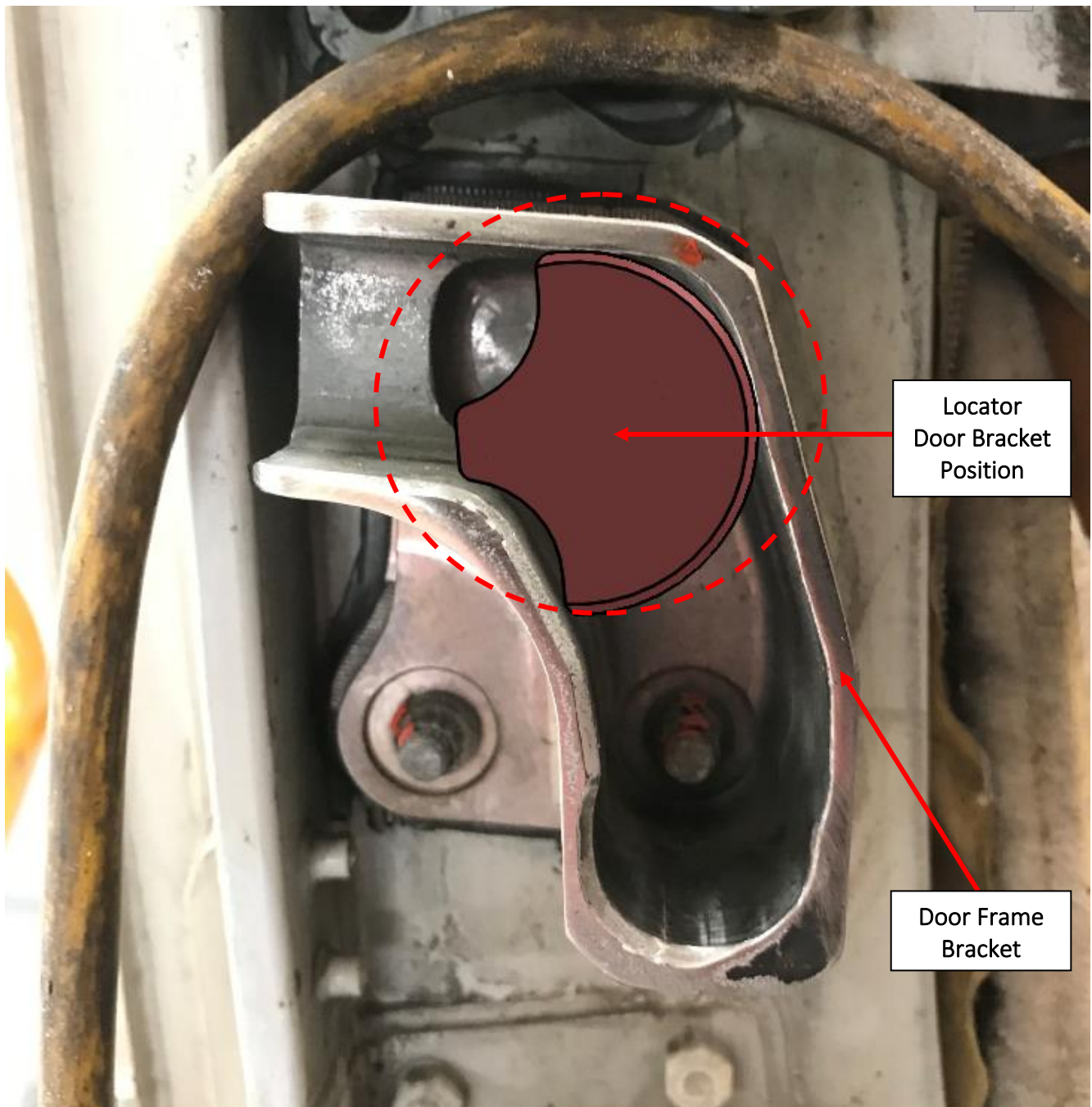


Figure 15 Bottom Door Bracket.

4.1.19 Push the Fixed bottom locator into bottom bracket as shown in figure 16.

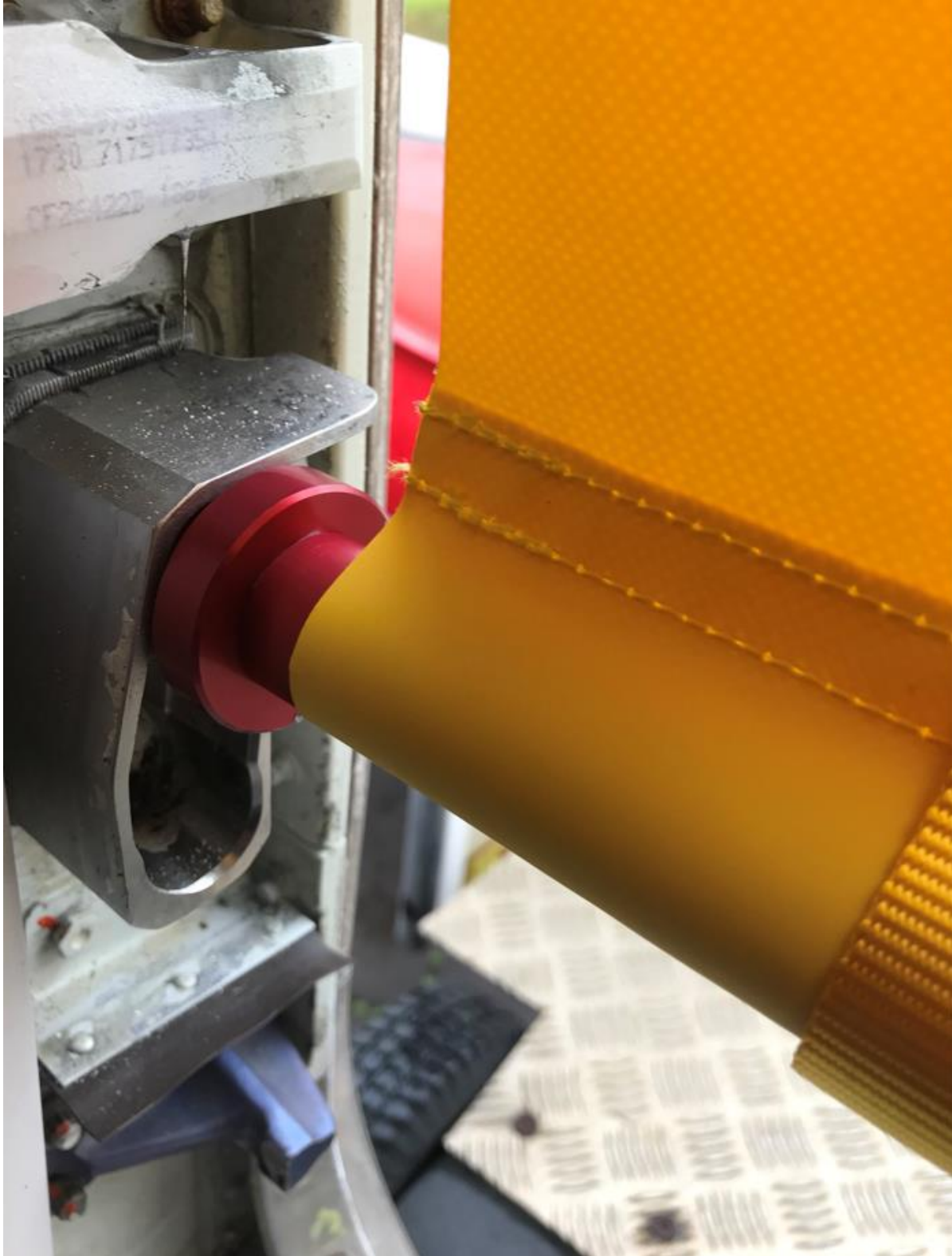


Figure 16 Fixed Bottom Locator in position.

- 4.1.20 Locate the bottom Spring-Loaded bottom Locator into the door bracket on the other side of the door frame, shown in figure 17.

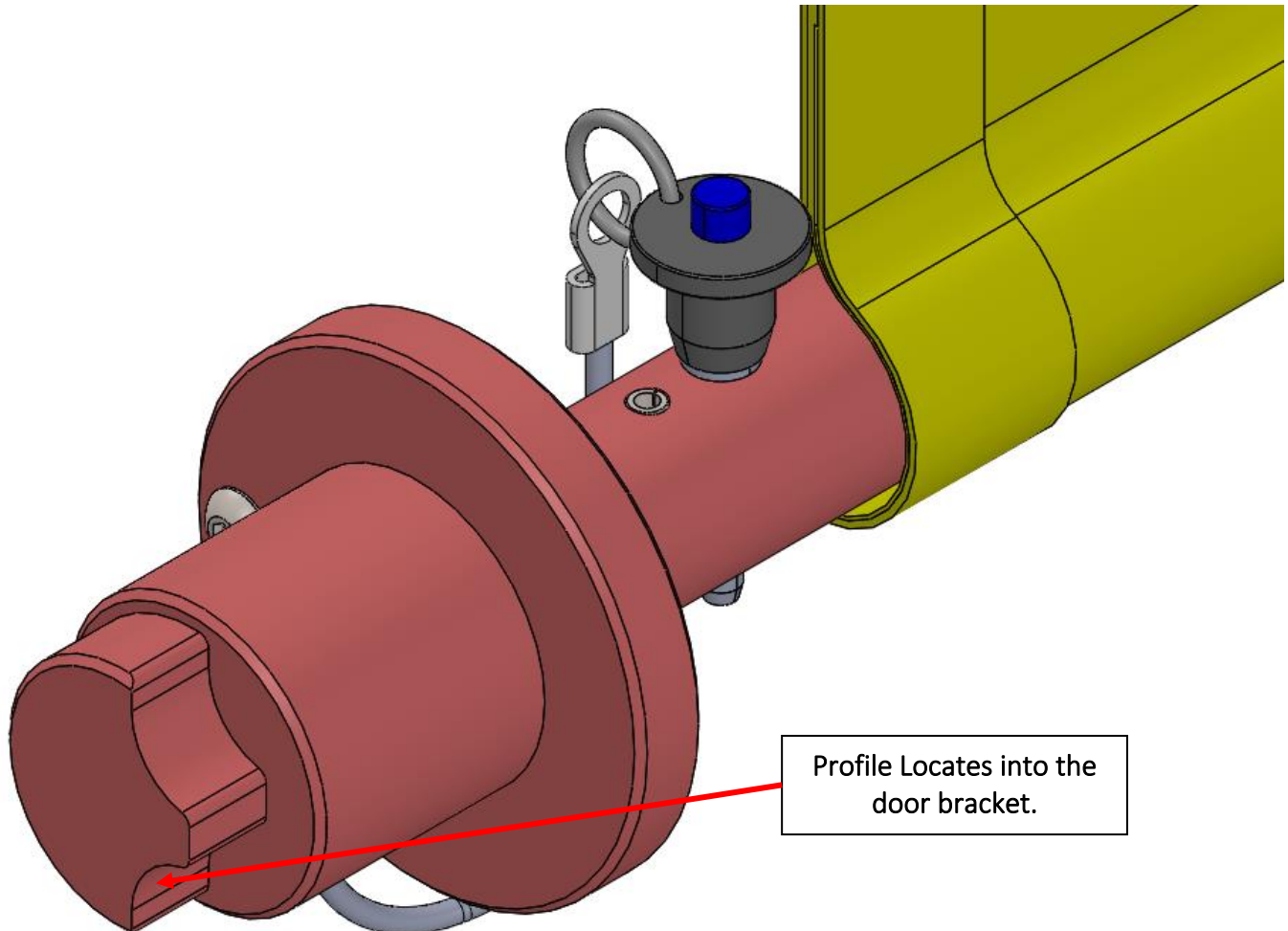


Figure 17 Bottom Sprung-Loaded Locator.

- 4.1.21 The bottom Sprung-Loaded Locator fits into the bottom Door Bracket area highlighted in figure 18.

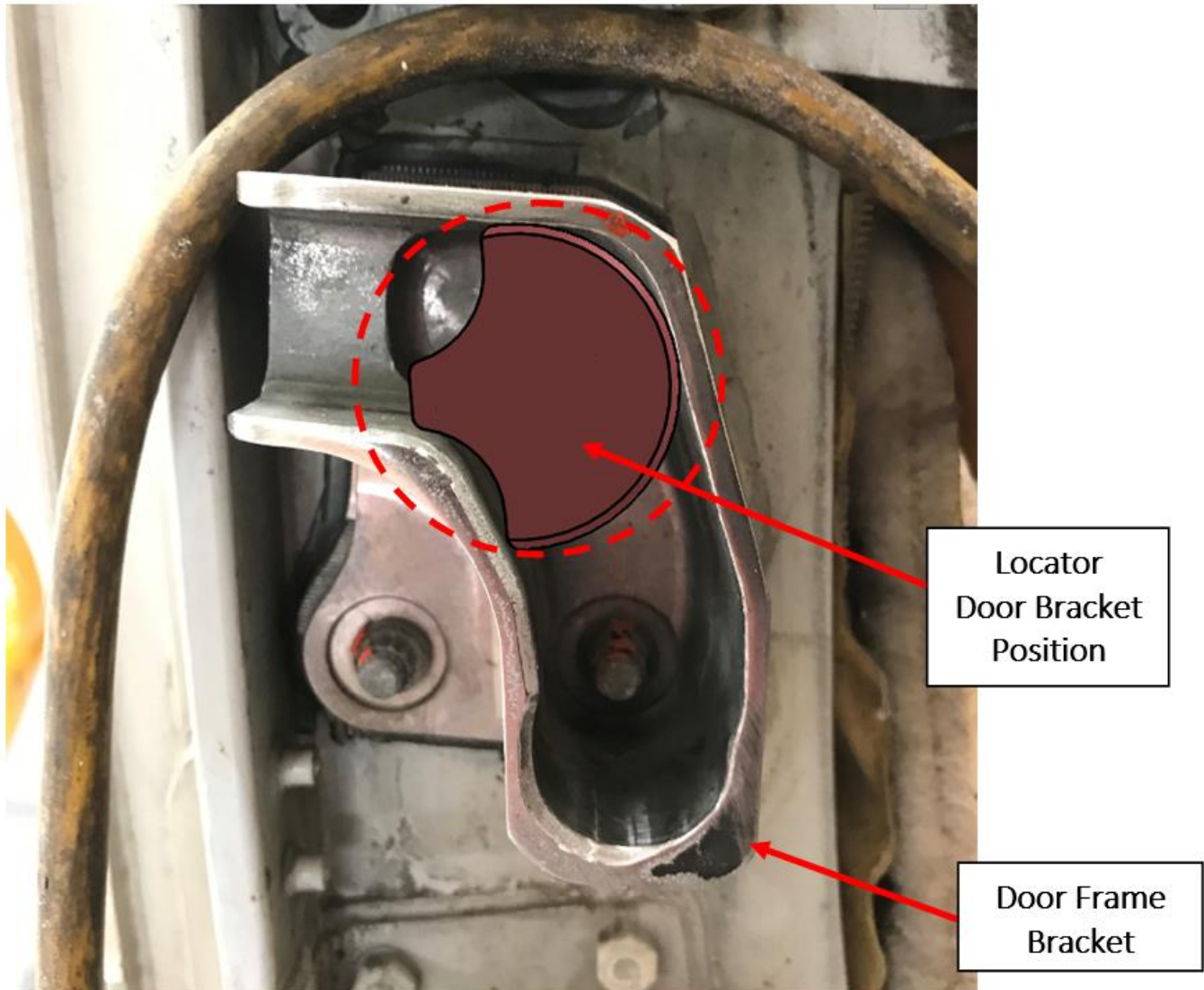


Figure 18 Bottom Door Bracket.

4.1.22 Push the bottom spring-loaded locator into the bottom door bracket as shown in figure 19.



Figure 19 Bottom Spring-Loaded Locator in position.

- 4.1.23 Press the button on the Quick Release pin to allow it to be fitted to the hole on the bottom tube.
- 4.1.24 With the button released the pin should not be able to be removed see figure 20.
- 4.1.25 Make sure that both bottom locators are fully engaged into the door brackets.
- 4.1.26 With the locking pin fitted, it should not be possible for the bottom locators to be removed from the door brackets.

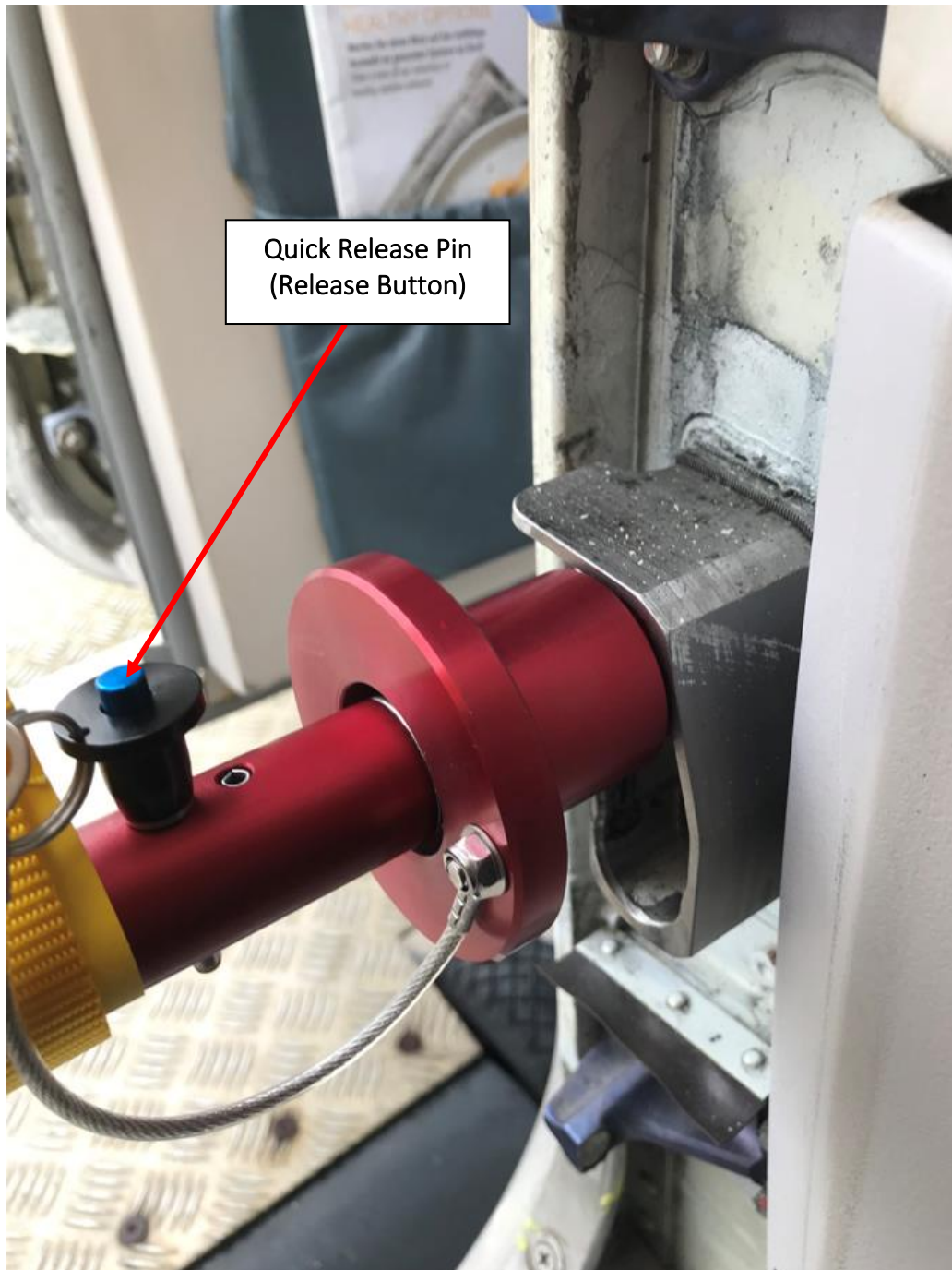


Figure 20 Bottom Spring-loaded and Quick Release Pin in position.

4.2 Removal

- 4.2.1 Start by removing the aircraft door barrier net from the bottom door brackets see figure 21.
- 4.2.2 Pull out the bottom Quick Release pin see figure 13.
- 4.2.3 Push the bottom spring-loaded locator inwards and remove from the bottom door bracket.
- 4.2.4 Remove/disengage bottom fixed locator from the bottom door bracket.
- 4.2.5 Refit the Quick Release pin to the bottom tube hole.
- 4.2.6 Push back in bottom pin into hole.
- 4.2.7 Pull out the top Quick Release pin.
- 4.2.8 Push in top spring-loaded locator inwards and remove from the top door bracket.
- 4.2.9 Remove/disengage top fixed locator from the top door bracket.
- 4.2.10 Refit the Quick Release pin to the top tube hole.



Figure 21 Aircraft Door Barrier Net 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 PVC Sheet, Webbing 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.