



AEROSPACE RECOMMENDED PRACTICE

ARP4101™/8**REV. A**

Issued 1988-07
Reaffirmed 2007-07
Revised 2020-02

Superseding ARP4101/8

(R) Flight Deck Interior Doors for Transport Aircraft

RATIONALE

This document has been updated with additional desired characteristics of the flight deck interior doors.

1. SCOPE

This document recommends criteria for standardizing flight deck interior doors and their operation to optimize their use under normal and emergency conditions.

2. REFERENCES

The following publications form a part of this document to the extent specified herein. The latest issue of SAE publications shall apply. The applicable issue of other publications shall be the issue in effect on the date of the purchase order. In the event of conflict between the text of this document and references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

2.1 Documentation

This annex should be used in conjunction with the ARP4101 Core Document. The following documents may also be applicable.

2.1.1 SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or +1 724-776-4970 (outside USA), www.sae.org.

ARP4101/7 Flight Deck Escape Provisions for Transport Aircraft

ARP4102 Flight Deck Panels, Controls, and Displays

2.2 Definitions

FLIGHT DECK INTERIOR DOOR: that door which connects the flight deck area with any cabin area or intervening area, whether passenger or cargo, and does not include any door leading from the flight deck directly to the outside of the aircraft.

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3. OPERATIONAL REQUIREMENTS

- 3.1 The dimensions of the flight deck interior door shall be such as to permit passage of a person carrying or wearing necessary emergency survival equipment, and should be at floor level and have a minimum clear opening of 20 inches (51 cm) wide and 78 inches (198 cm) high.
- 3.2 The method of operation of the door release should be a single obvious motion in a single plane (in the case of a knob, it should operate either clockwise or counterclockwise).
- 3.3 The interior door, when open, should not prevent exit from other compartments such as lavatories and crew rest areas.

The flight deck interior door should be located and have a direction of operation so as not to impede or block passage to other exits during emergency evacuation or interfere with use of emergency equipment, such as axes, fire extinguishers, etc.

- 3.4 There shall be no interference with operation of the flight deck interior door by any other component of the aircraft when positioned for normal operation.
- 3.5 Means, capable of withstanding a 9 g ultimate force acting in any direction, shall be provided to secure the door in an open position.
- 3.6 Means shall be provided to lock and unlock the door from the flight deck side without the use of a key.
- 3.7 The door release should “unlock” the door when operated normally from the flight deck side; however, the door should automatically relock when closed again.
- 3.8 Operation of the door release should be normal and natural, regardless of aircraft attitude (inverted, on either side, etc.). The door unlatch force shall not be greater than 20 pounds (9 kg). Latch release should not make a significant, distracting noise.
- 3.9 The design of the flight deck interior door and/or release mechanism should permit emergency egress by application of force, within the minimum capability of the minimum percentile female crew member for which the aircraft is certificated (without use of tools), in the event of jamming of the release mechanism or distortion of the door or supporting structure.
- 3.10 The door should be designed to ensure that it (or any of its significant components) will not be torn completely loose or jammed in the event of rapid decompression.
- 3.11 The door and the areas around the door opening shall have no sharp edges or protrusions which could cause injury or present a hazard to safe movement of persons under normal or emergency conditions.