

## Canadair Regional Jet 100/200 - Doors

### 1. INTRODUCTION

The aircraft has the following fuselage doors:

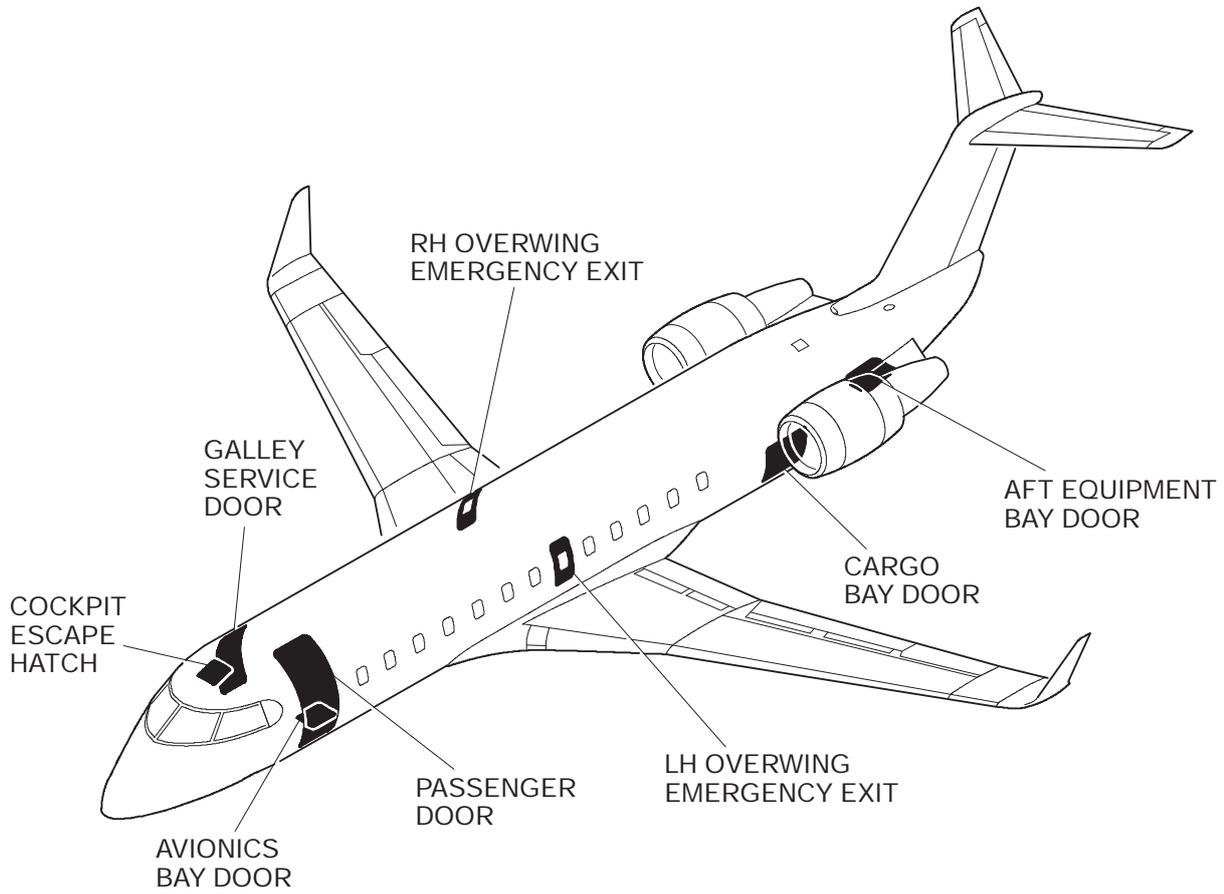
- Passenger door (type I exit)
- Galley service door (type I exit)
- Two overwing emergency exits (type III exit)
- Flight compartment overhead escape hatch
- Cargo door
- Avionics compartment door
- Aft equipment compartment door.

The passenger door and the galley service door can be operated from inside or outside of the aircraft and can also be used for emergency evacuation. The flight compartment escape hatch and the overwing emergency exits can also be operated from inside or outside of the aircraft. The cargo door, aft equipment compartment door and the avionics compartment door can only be operated from outside the aircraft. All doors, except the aft equipment compartment door and the cockpit overhead escape hatch are monitored by the proximity sensing electronic unit (PSEU).

The PSEU provides door status information for display on the EICAS.

The doors aural and visual indication system is triggered by signals received from position sensors and switches. Inputs from the position sensors and switches are processed by the proximity sensing electronic unit (PSEU) and transmitted to the EICAS. Door warning and caution messages are displayed on the EICAS primary page and door status is displayed on the DOORS synoptic page.

**Canadair Regional Jet 100/200 - Doors**



Doors – General  
Figure 06–10–1

## Canadair Regional Jet 100/200 - Doors

### A. System Circuit Breakers

SYSTEM	SUB-SYSTEM	CB NAME	BUS BAR	CB PANEL	CB LOCATION	NOTES
Doors	Proximity Sensing	DOOR IND	DC ESSENTIAL	4	B12	

### 1. PASSENGER DOOR

The passenger door is located at the forward left side of the fuselage and is the main entrance and exit to the cabin area.

The passenger door incorporates integral stairs with a retractable lower step and folding handrails. The door is hinged at the cabin floor level and opens outward. A counter-balance mechanism with gas springs is used to take the weight of the door and to dampen the door movement. At the fully open position, the door rests on a support wheel.

Handrails are provided to assist passengers in boarding and disembarking. Mechanical linkages raise the handrails when the door is opened and collapse them when the door is closed. When a jetway is used, the handrails must be collapsed. Collapsing of the handrails is done by removing the forward and aft handrail quick-release pins (Refer to Lowering the Stair Handrails).

Closing the passenger door from inside the aircraft is normally accomplished using the power assist system which is controlled from a DOOR ASSIST switchlight on the forward flight attendants panel.



Do not operate the Door Assist system when switching aircraft power from the APU generator to external power.

The passenger door status is displayed on the EICAS primary page in the form of warning and caution messages and on the DOOR synoptic page. The DOOR synoptic page is displayed when selected from the EICAS control panel.

#### A. Opening the Door from Inside

To open the door from inside:

- (1) Lift the inner handle out of its cam recess.
  - The outer handle ejects from its recess
  - The latch mechanism unlocks
  - The pressurization flap on the passenger door's exterior surface opens.
- (2) Continue the upward movement of the handle to the OPEN position.
  - The latch cams and latch pins disengage from the door frame fittings
  - Fwd and aft pull-out levers open the door to the near vertical (balanced) position.
- (3) Firmly push the door outward.

## Canadair Regional Jet 100/200 - Doors

- The door descends in a gradual downward movement (dampened by the counterbalance mechanism gas springs)
- The retractable lower step and folding handrails deploy
- The door support wheel extends and locks in place before reaching the ground.

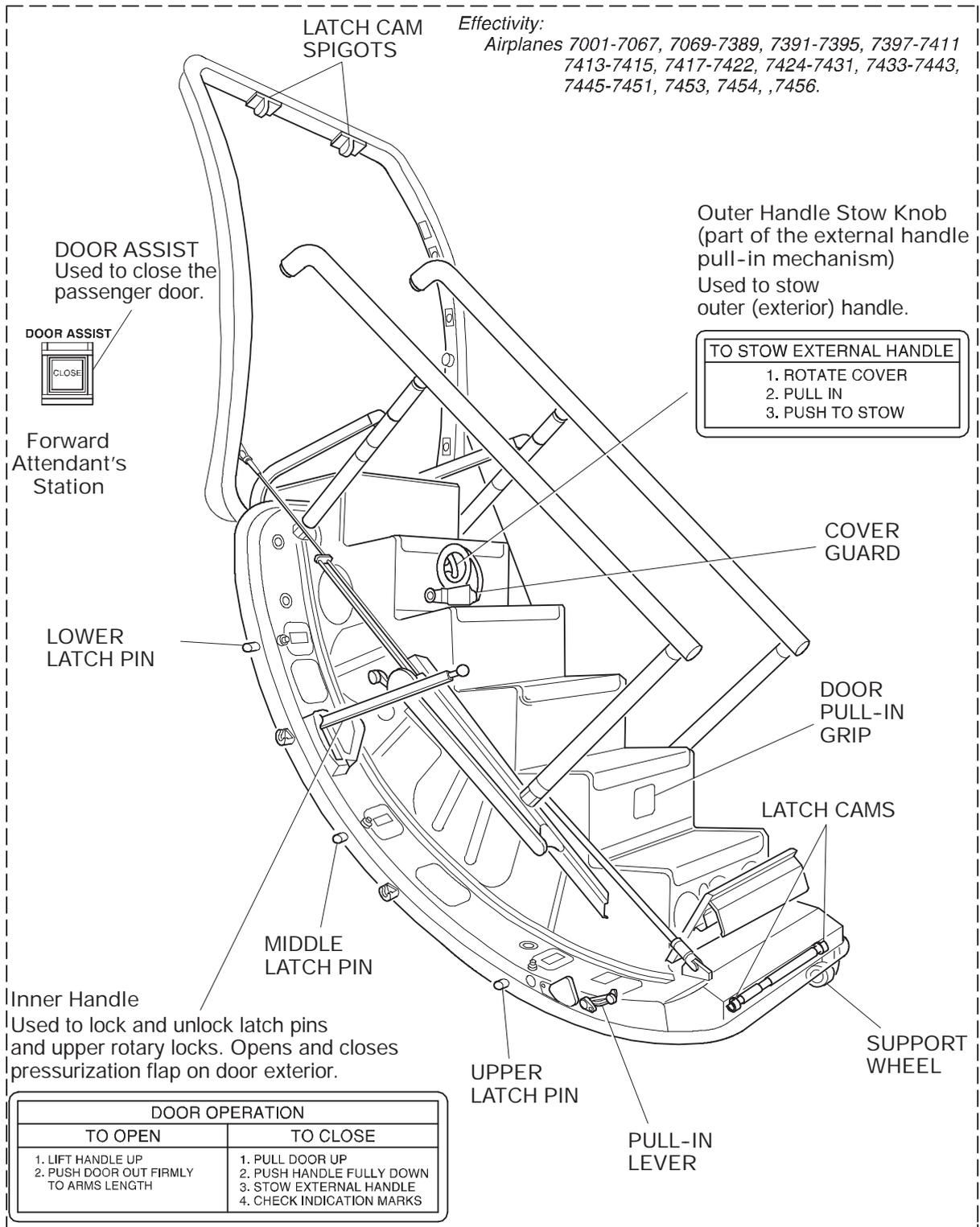
### NOTE

Maximum load capacity of the door is 454 kgs (1000 lbs) or a maximum of four passengers on the stairway at any time.



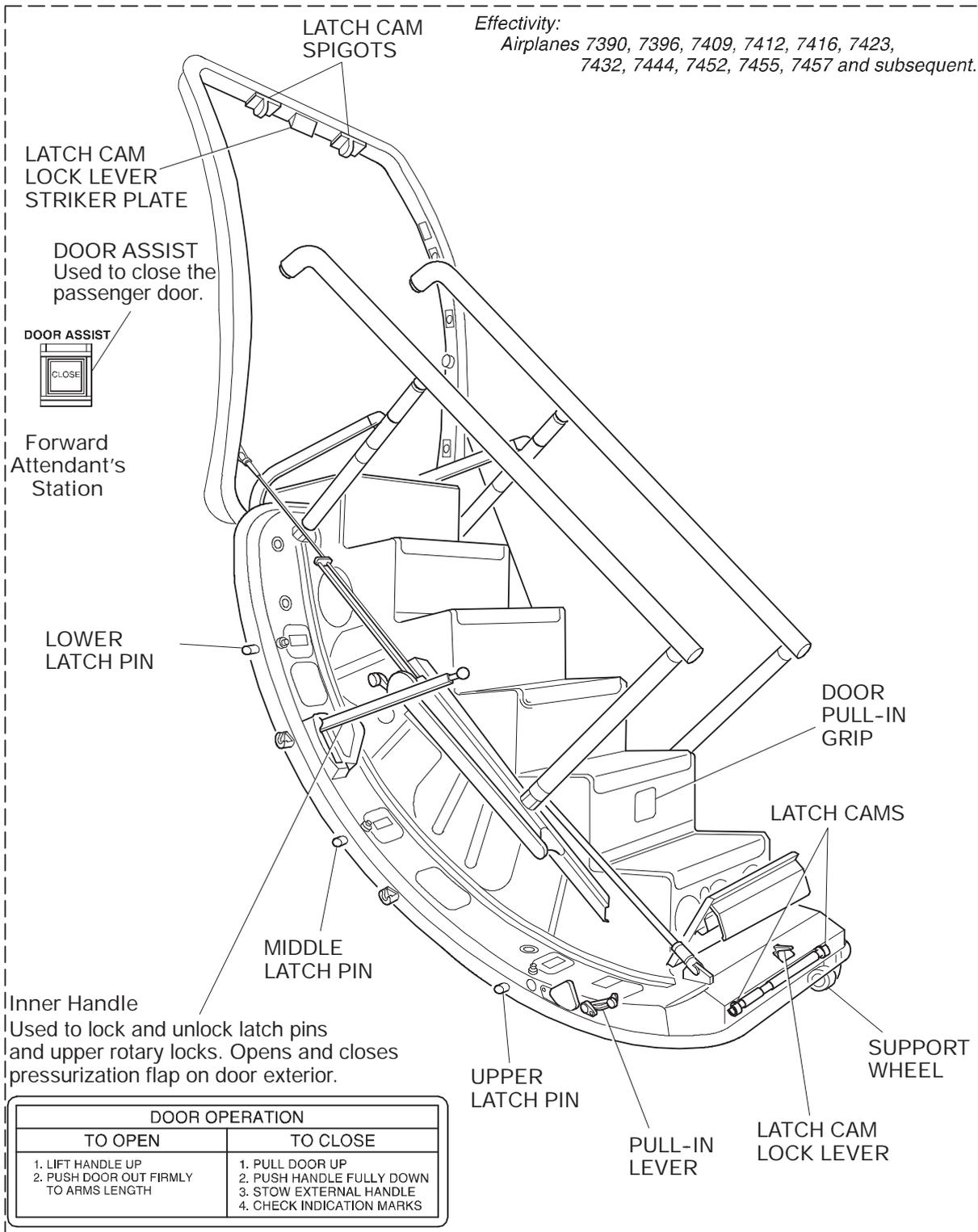
Door support straps must be used when moving the aircraft with the door open or when placing the aircraft on jacks.

# Canadair Regional Jet 100/200 - Doors



Passenger Door  
Figure 06-20-1

# Canadair Regional Jet 100/200 - Doors



Passenger Door  
Figure 06-20-1

B. Closing and Latching the Door from Inside

Effectivity:

- Aircraft 7001–7067, 7069–7389, 7391–7395, 7397–7411, 7413–7415, 7417–7422, 7424–7431, 7433–7443, 7445–7451, 7453, 7454, 7456.

To close and latch the door from inside:

- (1) Press and hold the DOOR ASSIST switchlight on the forward attendant's panel.
- (2) The electrical motor pulls the door up and stops automatically when the door reaches the near vertical position.
- (3) Grasp the handle in the second step riser and pull the door fully closed.
  - The fwd and aft pull-in/push-out levers engage in respective cams to hold the door in this position.
- (4) Push the inner handle down to the CLOSED position.
  - The latch cams and latch pins engage in the door frame fittings.
- (5) Pull the stow handle to the latch position.
  - The outer handle and the door vent flap close simultaneously.
- (6) Make sure the visual indications of door latches are as follows:
  - Green marks on latch cams must align with green marks on the upper door structure (2 locations)
  - Green marks on latch pins must align with green marks on indicator windows (6 locations)
  - The latch mechanism lower lock indicator flag changes from a red UNLOCKED to a green LOCKED indication.



B. Closing and Latching the Door from Inside

Effectivity:

- Aircraft 7390, 7396, 7409, 7412, 7416, 7423, 7432, 7444, 7452, 7455, 7457 and subsequent.

To close and latch the door from inside:

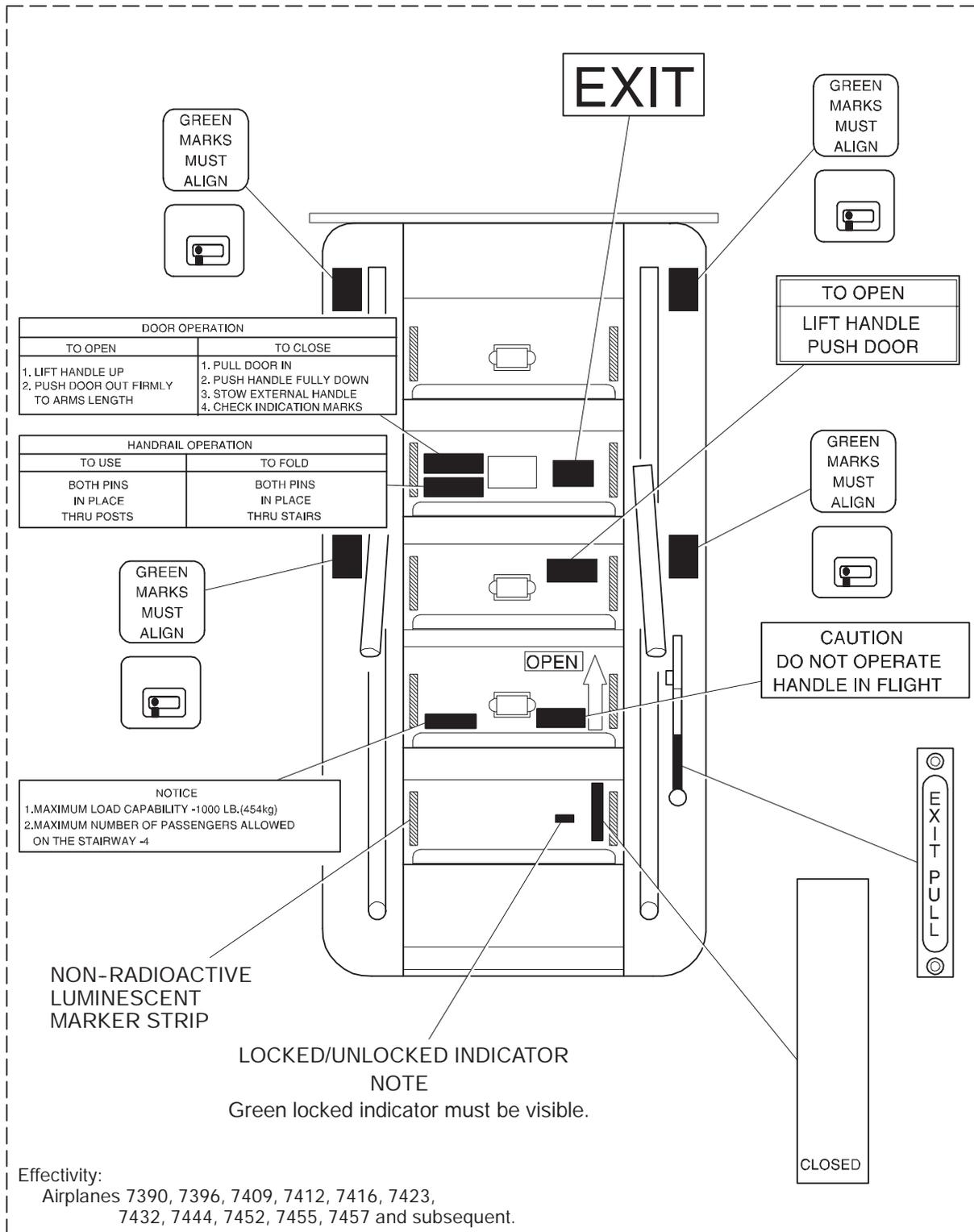
- (1) Press and hold the DOOR ASSIST switchlight on the forward attendant's panel.
- (2) The electrical motor pulls the door up and stops automatically when the door reaches the near vertical position.

NOTE

An interlock on the cam mechanism under the lower step prevents the inner handle from moving to the close position, until the door is fully pulled into the fuselage structure.

- (3) Grasp the handle in the second step riser and pull the door fully closed.
  - The fwd and aft pull-in/push-out levers engage in respective cams to hold the door in this position.
- (4) Push the inner handle down to the CLOSED position.
  - The latch cams and latch pins engage in the door frame fittings
  - The inner handle, the outer handle and the door vent flap close simultaneously.
- (5) Make sure the visual indications of door latches are as follows:
  - Green marks on latch cams must align with green marks on door structure (2 locations)
  - Green marks on latch pins must align with green marks on indicator windows (4 locations)
  - The latch mechanism lower lock indicator flag changes from a red UNLOCKED to a green LOCKED indication.

# Canadair Regional Jet 100/200 - Doors



Interior Passenger Door Placards  
Figure 06-20-2

C. Opening the Door from Outside

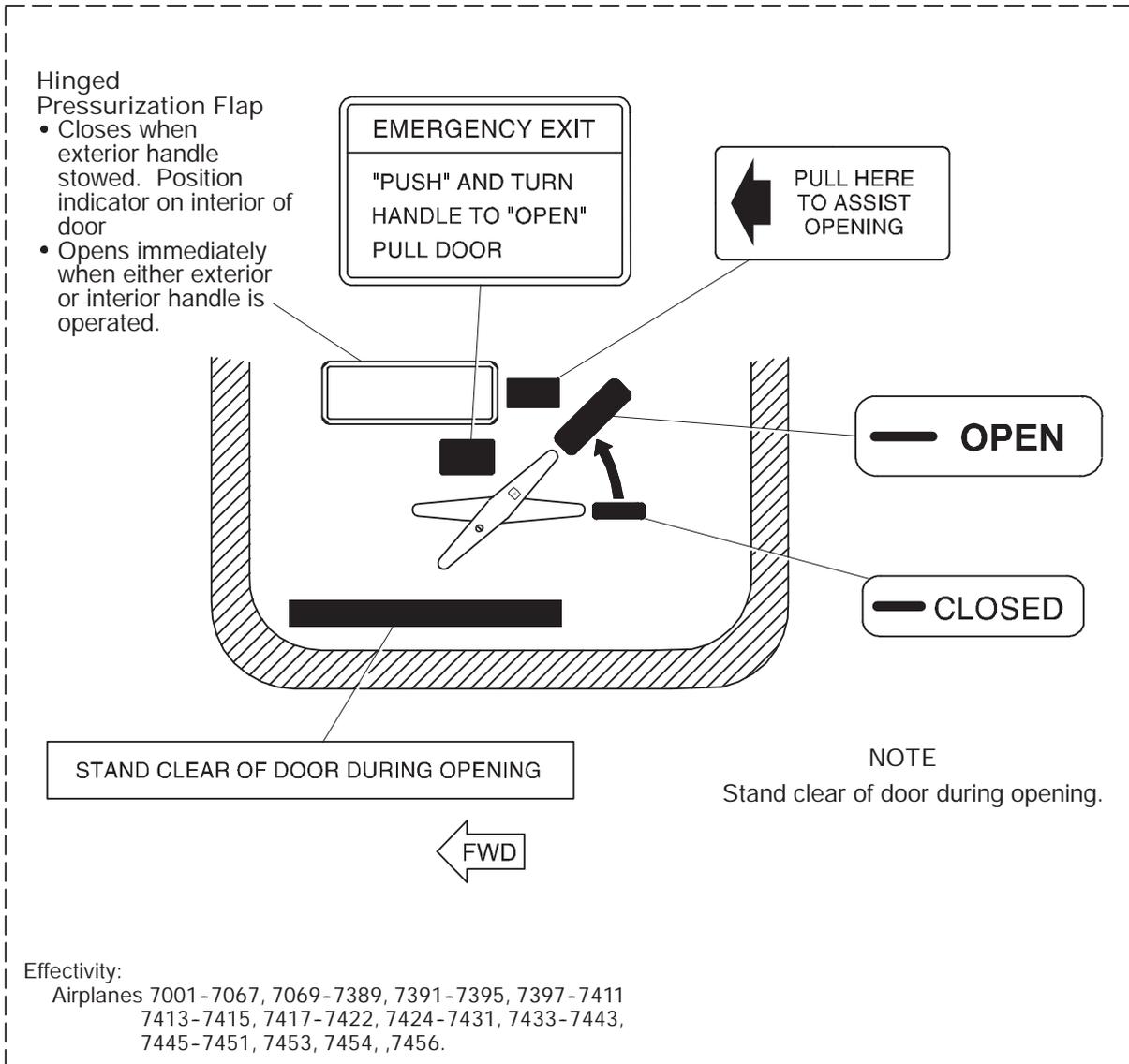
Effectivity:

- Aircraft 7001–7067, 7069–7389, 7391–7395, 7397–7411, 7413–7415, 7417–7422, 7424–7431, 7433–7443, 7445–7451, 7453, 7454, 7456.

To open the door from outside:

- (1) Push-in the outer handle trigger plate.
  - The outer handle ejects from the door recess
  - The pressurization flap opens.
- (2) Rotate the outer handle counterclockwise to the OPEN position.
  - The door latch mechanism unlocks
  - The latch cams and latch pins disengage from the door frame fittings
  - The fwd and aft pull-in levers open the door to near vertical position
  - The door descends in a gradual downward movement (dampened by the counterbalance mechanism gas springs)
  - The two folding handrails deploy
  - The support wheel extends and locks in place before reaching the ground.

# Canadair Regional Jet 100/200 - Doors



Exterior Passenger Door Placards  
 Figure 06-20-3

C. Opening the Door from Outside

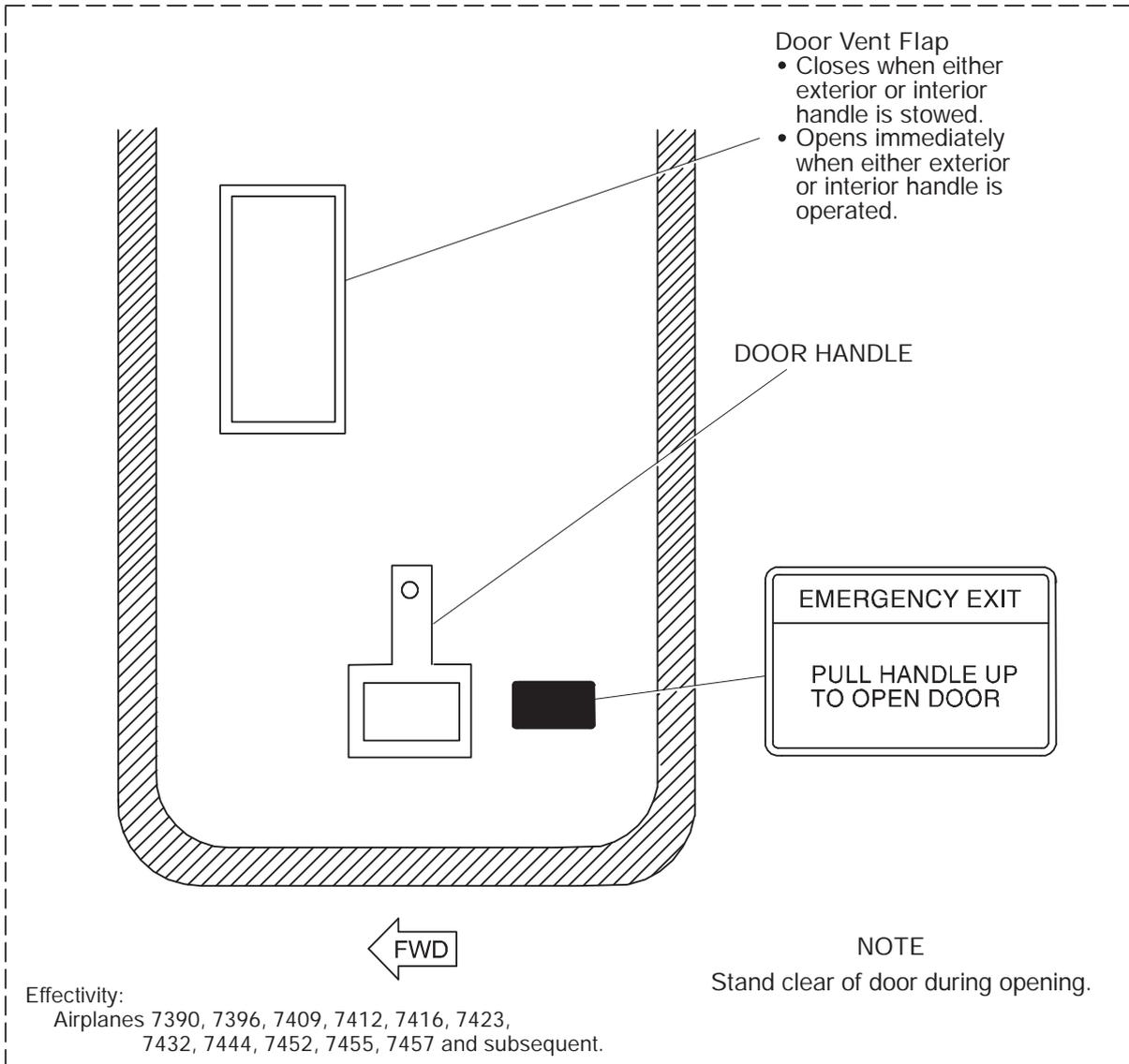
Effectivity:

- Aircraft 7390, 7396, 7409, 7412, 7416, 7423, 7432, 7444, 7452, 7455, 7457 and subsequent.

To open the door from outside:

- (1) Push-in the outer handle push plate, grab the handle grip and pull outward then downward.
  - The door latch mechanism unlocks
  - The pressurization flap opens
  - The latch cams and latch pins disengage from the door frame fittings
  - The fwd and aft pull-in levers open the door to near vertical position
  - The door descends in a gradual downward movement (dampened by the counterbalance mechanism gas springs)
  - The two folding handrails deploy
  - The support wheel extends and locks in place before reaching the ground.

# Canadair Regional Jet 100/200 - Doors



Exterior Passenger Door Placards  
Figure 06-20-3

D. Closing and Latching the Door from Outside

Effectivity:

- Aircraft 7001–7067, 7069–7389, 7391–7395, 7397–7411, 7413–7415, 7417–7422, 7424–7431, 7433–7443, 7445–7451, 7453, 7454, 7456.

To close and latch the door from outside:

- (1) Manually raise the door up and push it fully closed.

NOTE

The gas springs will assist in retracting the door up to near vertical position.

- The fwd and aft pull-in levers engage in respective cams to hold door in this position.
- (2) Rotate the outer handle clockwise to the CLOSED position.
    - The latch cams and latch pins engage in the door frame fittings.
  - (3) Push the outer handle to stow it in the door recess.
    - The door vent flap closes simultaneously.

D. Closing and Latching the Door from Outside

Effectivity:

- Aircraft 7390, 7396, 7409, 7412, 7416, 7423, 7432, 7444, 7452, 7455, 7457 and subsequent.

To close and latch the door from outside:

- (1) Manually raise the door up and push it fully closed.

**NOTE**

The gas springs will assist in retracting the door up to near vertical position.

- The fwd and aft pull-in levers engage in respective cams to hold door in this position.
- (2) Push outer handle down fully in its recess.
    - The latch cams and latch pins engage in the door frame fittings
    - The inner handle, the outer handle and the door vent flap close simultaneously.

E. Lowering the Stair Handrails

When the door is closed,

- (1) Remove the two quick-release pins from the holes of the stair handrails.
- (2) Stow the quick-release pins in the storage holes of the brackets.
- (3) Open the passenger door.

When the door is open,

- (4) Hold the stair handrails and remove the two quick release pins from the holes of the stair handrails.
- (5) Stow the quick-release pins in the storage holes of the brackets.



Do not use force to lift/lower the stair handrails. Ensure that the bottom step is free to unfold/fold as the stair handrails are gradually lifted/lowered.

## Canadair Regional Jet 100/200 - Doors

- (6) Lower the stair handrails and ensure that the clips on the stair handrails attach to the quick release pins.

### F. Lifting the Stair Handrails

When the door is open,



Do not close the door without the quick release pins in the storage holes of the brackets or in the holes of the stair handrails.

- (1) Remove the quick release pins from the storage holes of the brackets.
- (2) Lift the handrails into position.



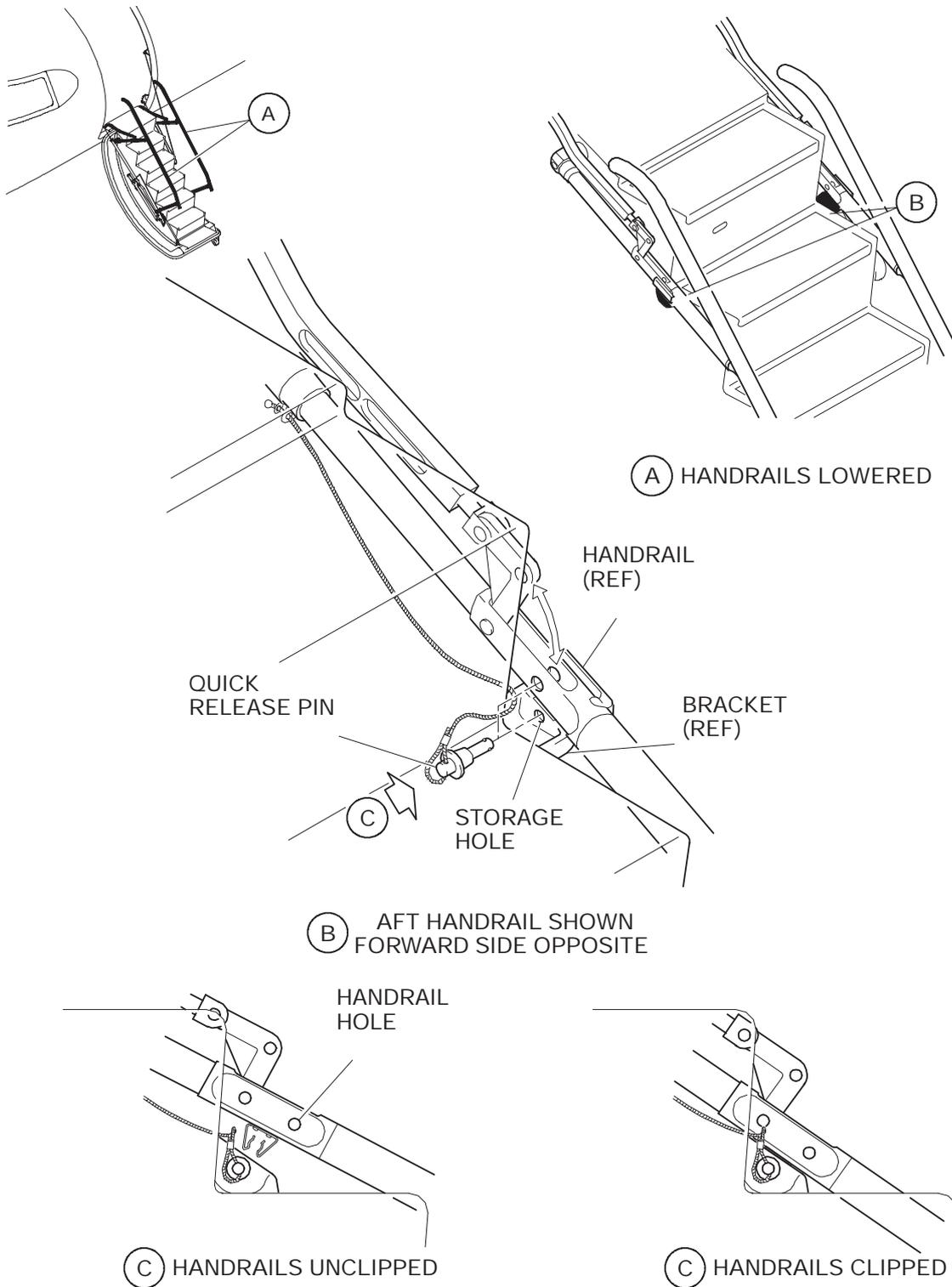
The quick-release pins must be installed in the holes of the stair handrails before the aircraft is moved. This ensures that the stair handrail are in the upper position in case of an emergency evacuation.

- (3) Install the two quick-release pins in the holes of the stair handrails.

When the door is closed,

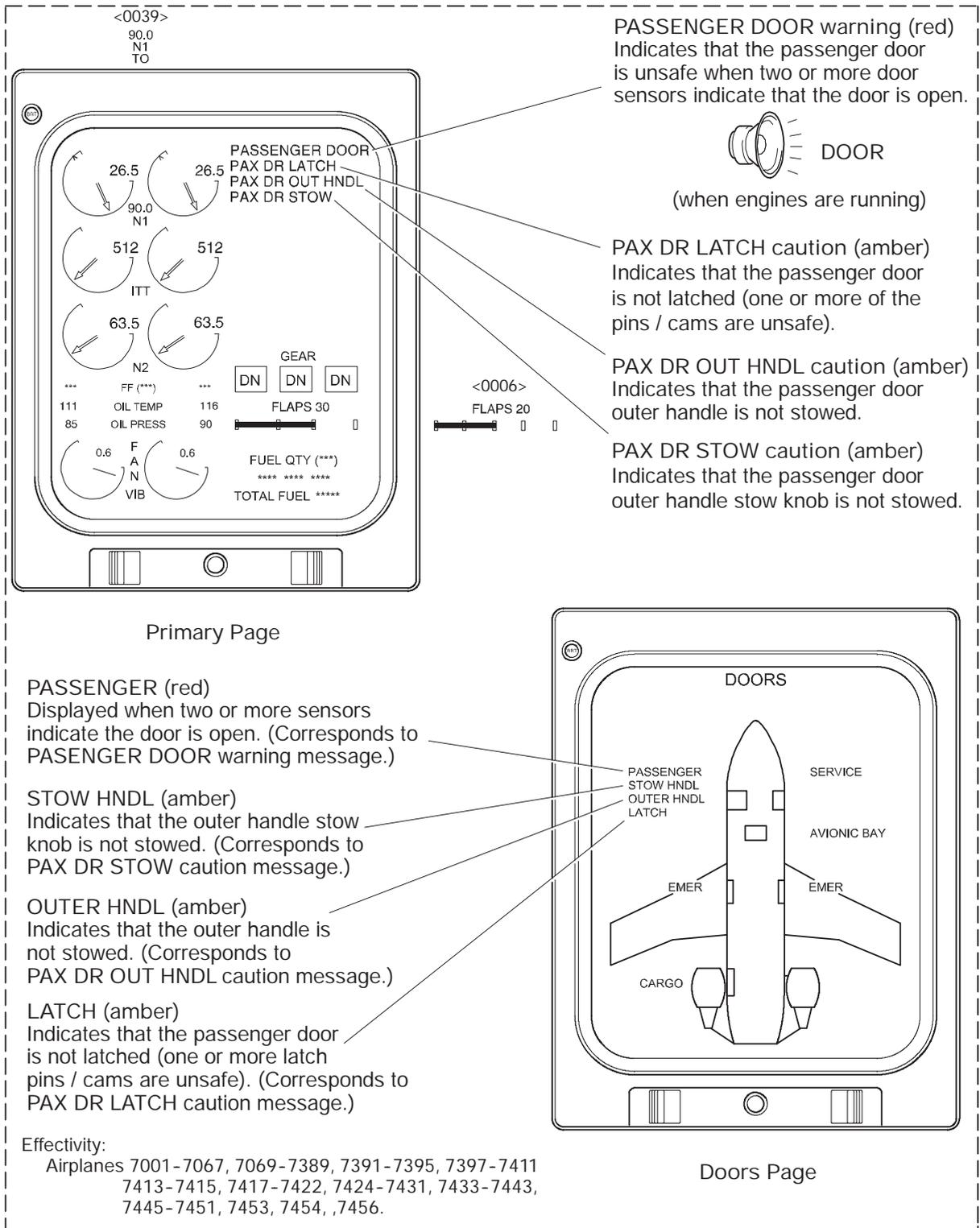
- (4) Remove the two the quick-release pins from the storage holes of the brackets.
- (5) Insert the quick-release pins into the holes of the stair handrails.

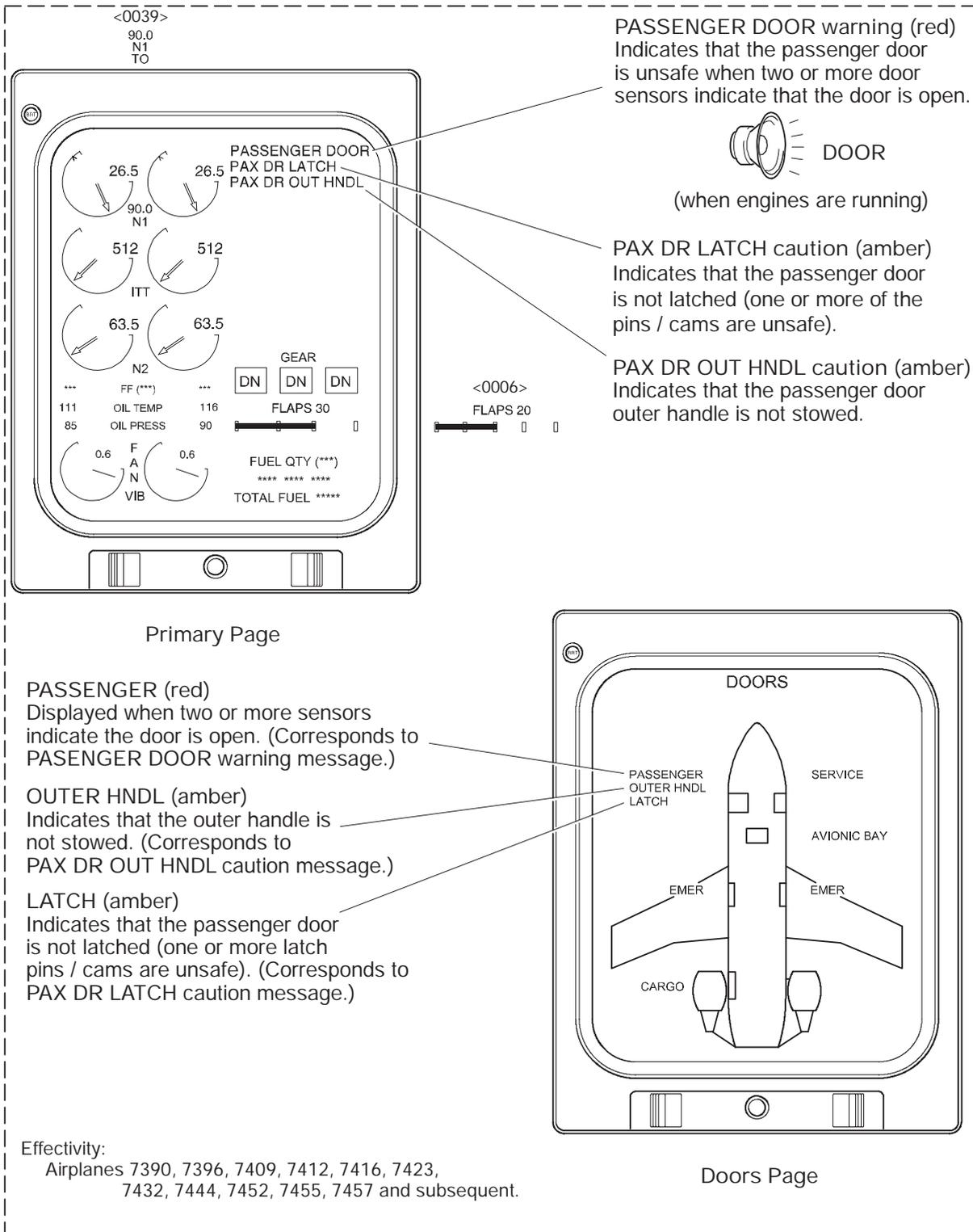
Canadair Regional Jet 100/200 - Doors



Passenger Door – Handrails  
Figure 06-20-4

# Canadair Regional Jet 100/200 - Doors





Passenger Door – EICAS Indications <MST>  
 Figure 06–20–5

## Canadair Regional Jet 100/200 - Doors

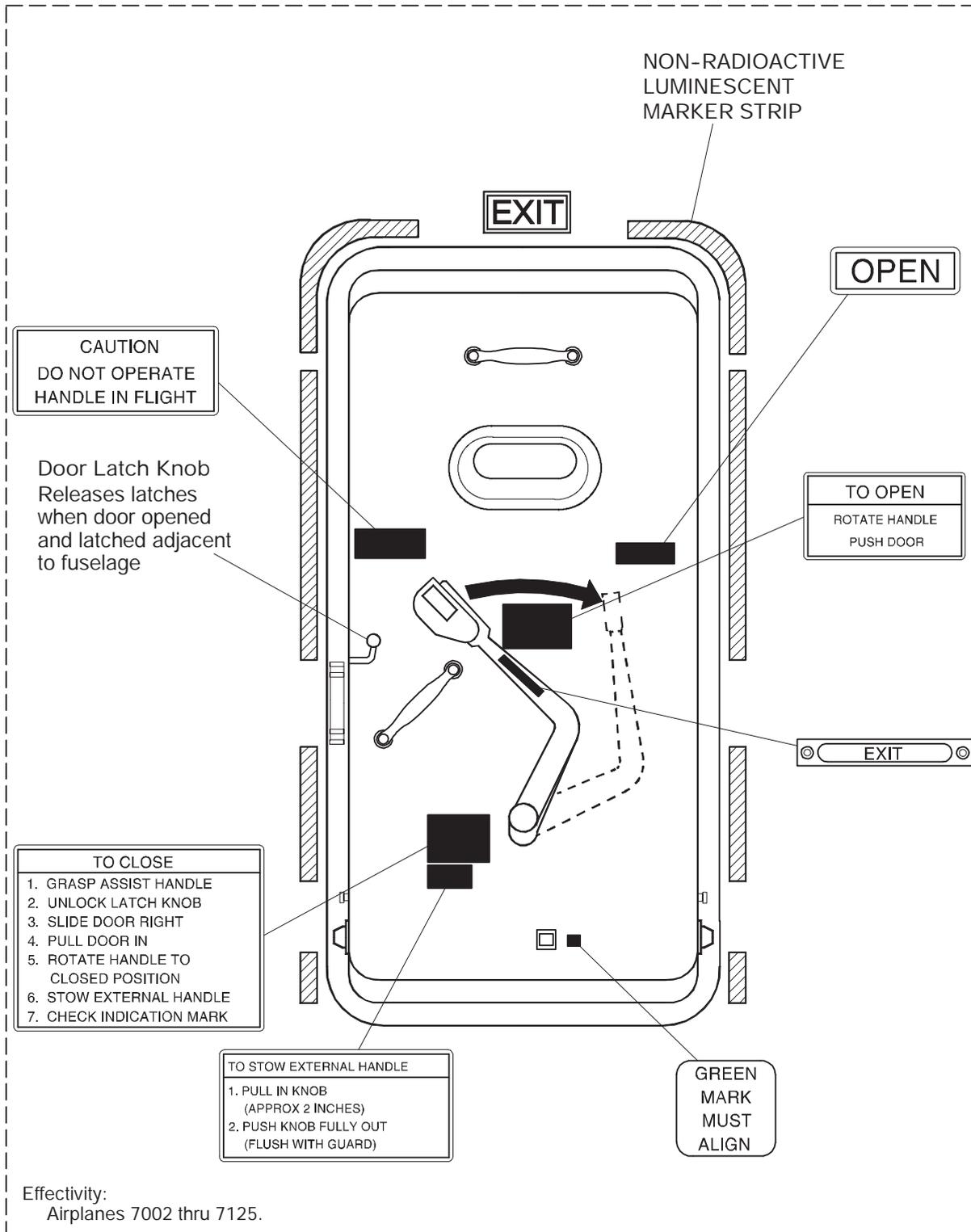
### G. System Circuit Breakers

SYSTEM	SUB-SYSTEM	CB NAME	BUS BAR	CB PANEL	CB LOCATION	NOTES
Passenger Door	Actuator	PASS DOOR ACT	DC BUS 1	1	L2	

1. GALLEY SERVICE DOOR

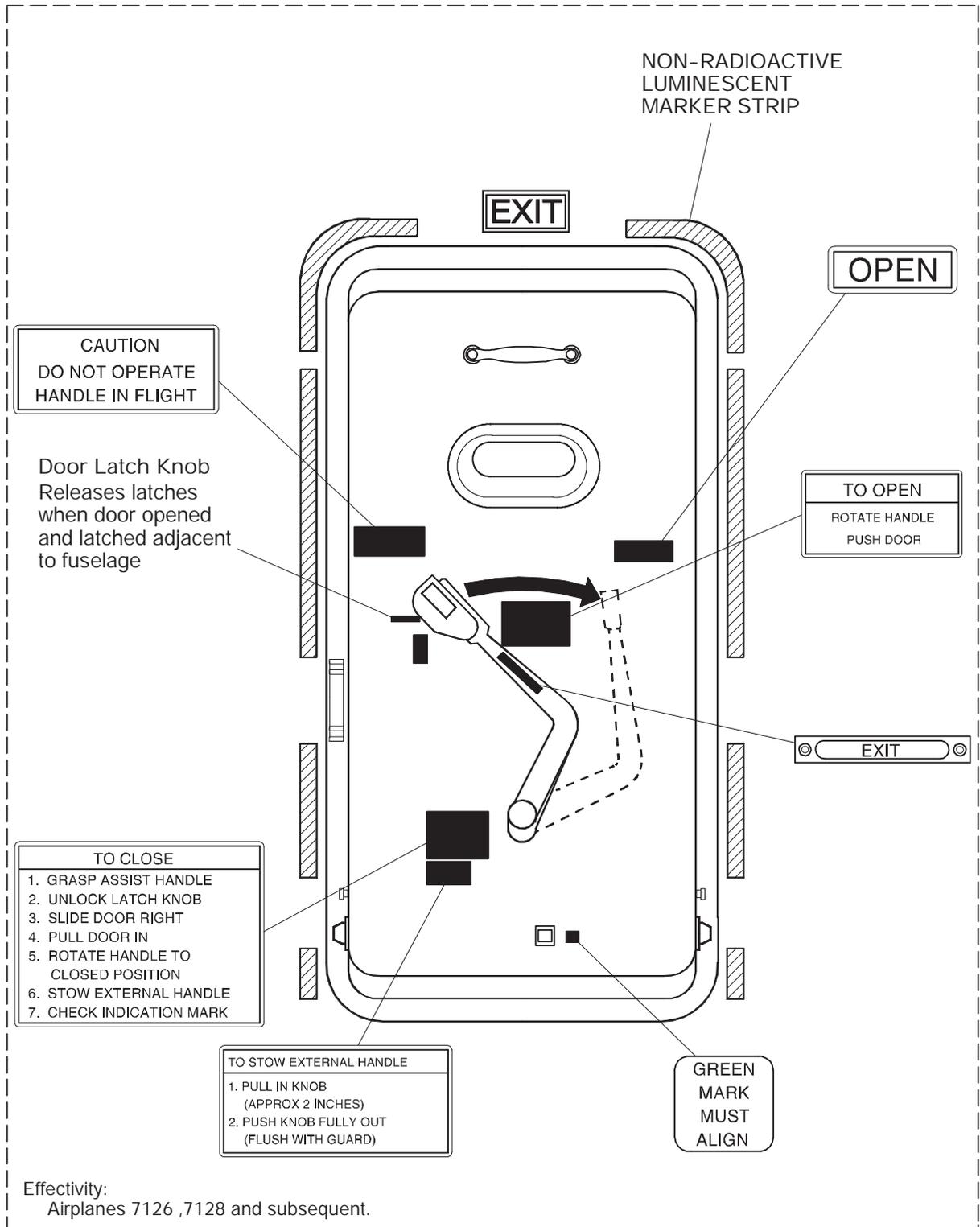
The galley service door is used for servicing the galley, and can also be used for emergency evacuation of the cabin area. It is located on the right forward fuselage, adjacent to the galley. The outer structure of the door has a window and outer handle. The door initially moves upward to clear stops on the fuselage structure, then swings outward and fully forward to the lock open position, parallel to the fuselage.

The inner door handle rotates counterclockwise to unlatch and clockwise to latch. The outer door handle rotates clockwise to unlatch and counter-clockwise to latch.



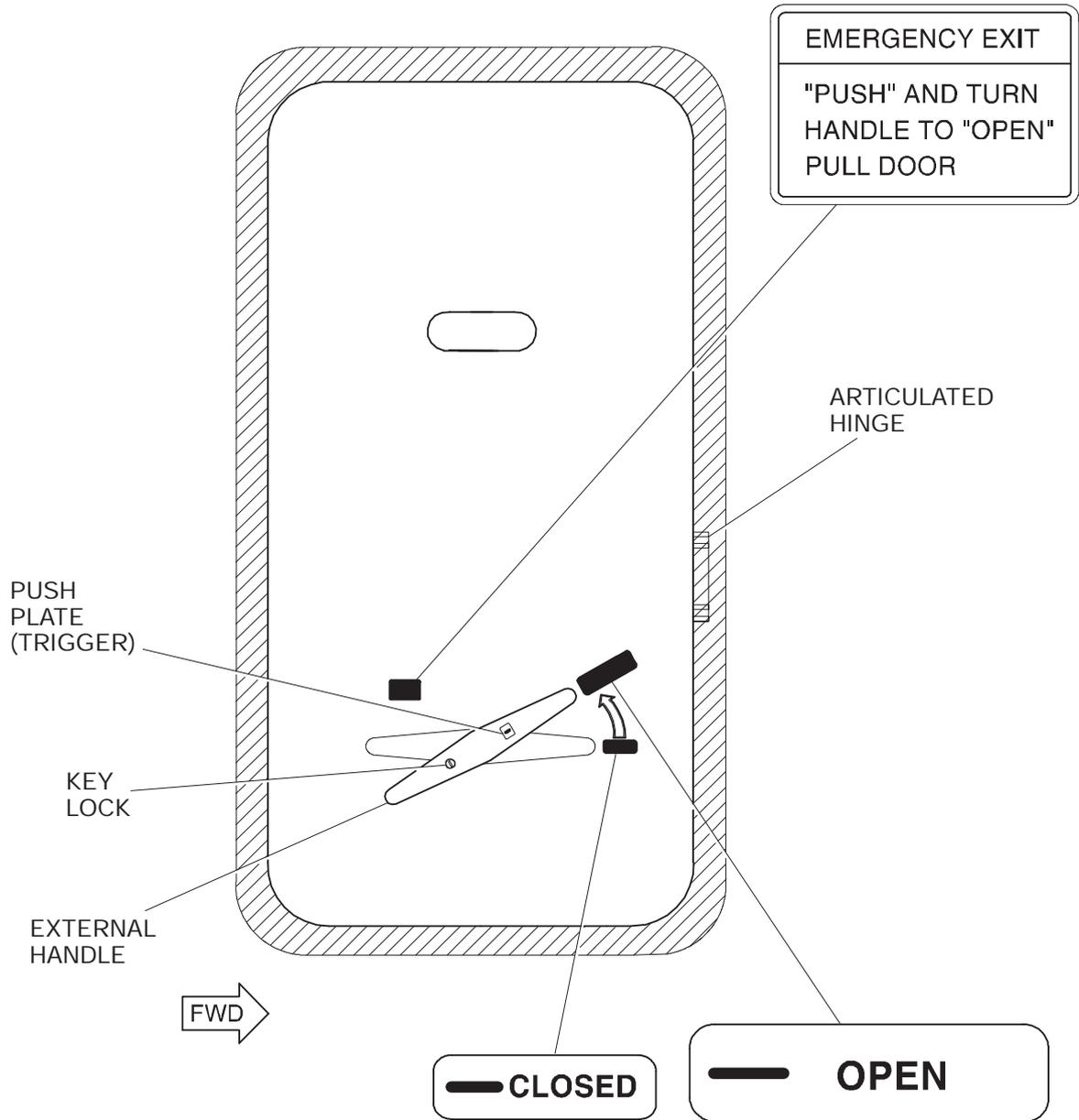
Interior Galley/Service Door  
Figure 06-30-1

# Canadair Regional Jet 100/200 - Doors



Interior Galley/Service Door  
Figure 06-30-1

Canadair Regional Jet 100/200 - Doors



Exterior Galley/Service Door  
Figure 06-30-2

## Canadair Regional Jet 100/200 - Doors

### A. Opening the Galley Service Door from Inside

To open the galley service door from inside:

- (1) Rotate the inner handle clockwise to the OPEN position.
  - The door moves up, to clear the door stop fittings (guided by door rollers)
  - The two downlock rollers disengage from the door frame roller guide fittings.
- (2) Push the door outward and forward until it locks in open position.

### B. Closing and Latching the Galley Service Door from Inside

To close and latch the galley service door from inside:

- (1) Pull the door latch, to release the door from the locked open position.
  - The door moves aft, in front of the door opening.
- (2) Pull the door in to engage the rollers in the door track fittings, then rotate the inner handle counter-clockwise to the CLOSED position.
  - The door slides down, behind the door stop fittings (guided by door rollers)
  - The two downlock rollers fully engage in the door frame roller guide fittings.
- (3) Verify the correct indication of door latch through the indicator window located at the lower aft corner of the door.
  - The green mark on the indicator sector aligns with the green mark on the indicator window.

### C. Opening the Galley Service Door from Outside

To open the galley service door from outside:

- (1) Push the trigger plate to release the outer handle from the door recess.
- (2) Rotate the outer handle fully counter-clockwise to the OPEN position.
  - The door moves up, to clear the door stop fittings (guided by door rollers)
  - The two downlock rollers disengage from the door frame fittings.
- (3) Pull the door outward and move it forward until it locks in position.

### D. Closing and Latching the Galley Service Door from Outside

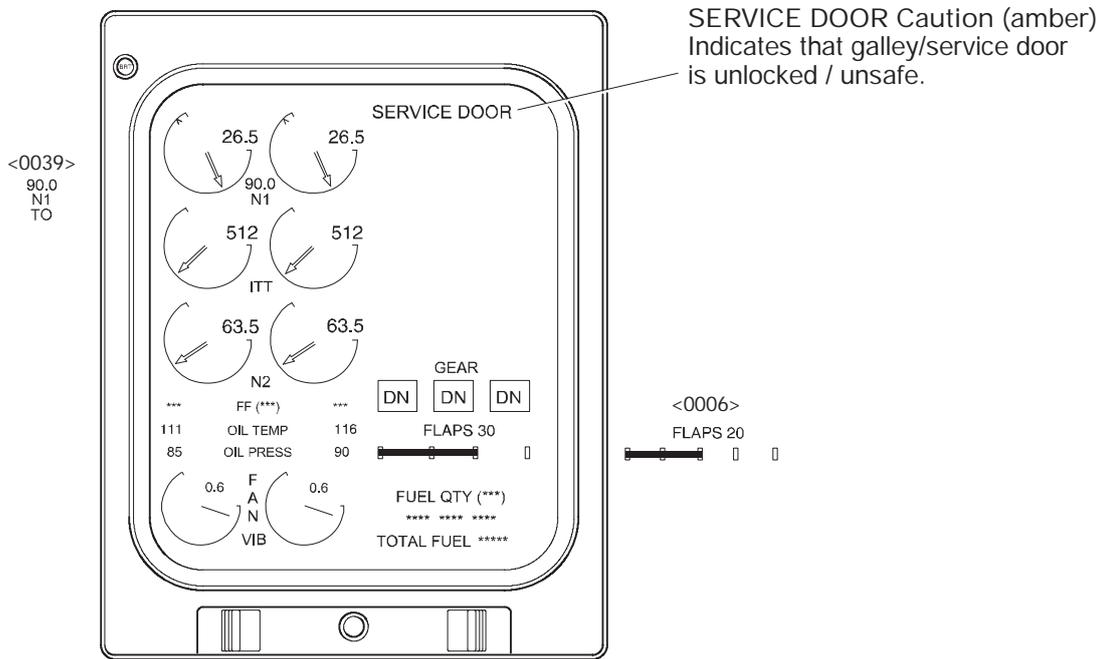
To close and latch the galley service door from outside:

- (1) Pull the door latch, to release the door from the locked open position.

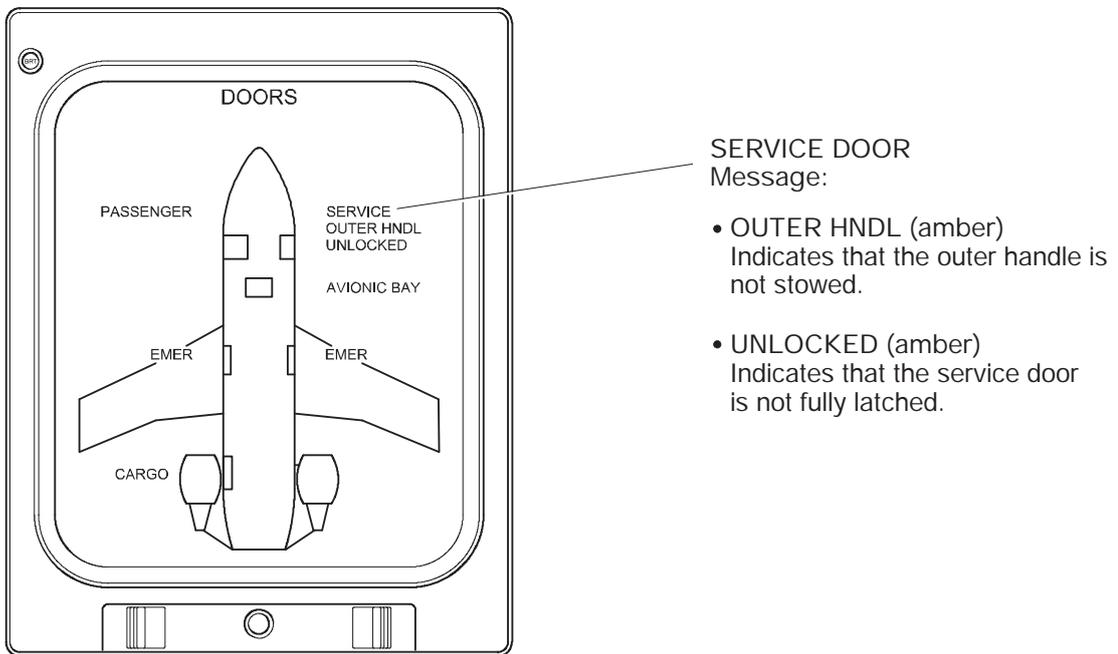
## Canadair Regional Jet 100/200 - Doors

- The door moves aft into the door opening.
- (2) Push the door in to engage the door rollers in the track fittings, then rotate the outer handle clockwise to the CLOSED position until it lines up with its recess.
- The door slides down, behind the door stop fittings (guided by door rollers)
  - The two downlock rollers engage in the door frame fittings.
- (3) Push the outer handle until it engages in the door recess.

# Canadair Regional Jet 100/200 - Doors



Primary Page



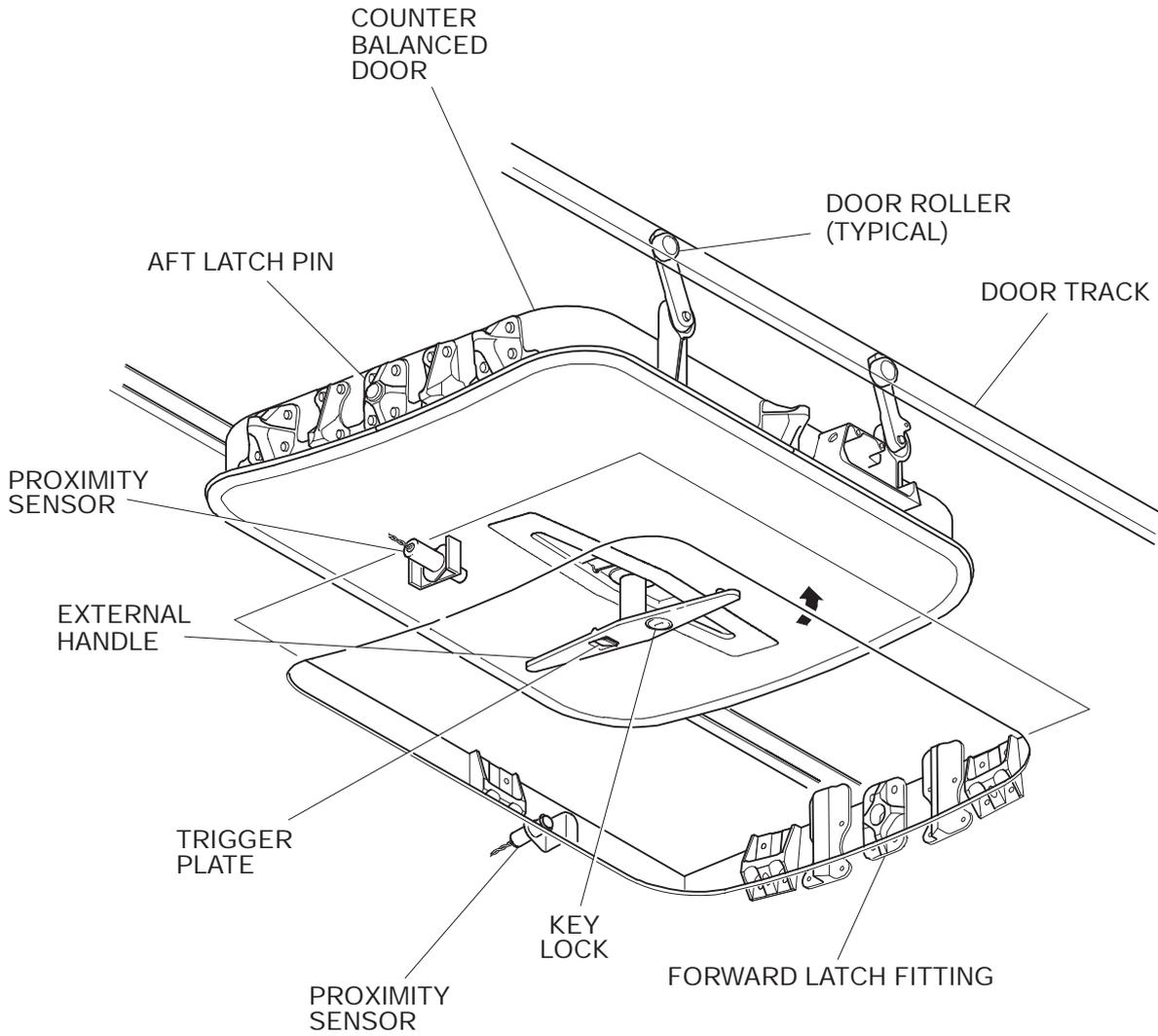
Doors Page

Service Door – EICAS Indications <MST>  
Figure 06-30-3

1. AVIONICS BAY DOOR

The avionics compartment door is used to gain access to the equipment in the avionics compartment. It is located on the centerline of the lower forward fuselage. The door opens inward and moves up on four spring-loaded roller arms. The roller arms engage a set of tracks that allows the door to be moved forward or aft in the avionics compartment. The door does not open from the inside.

The door outer handle is rotated to the OPEN position to unlatch and to the CLOSED position to latch.



Avionic Bay Door  
Figure 06-40-1

## Canadair Regional Jet 100/200 - Doors

### A. Opening the Avionics Bay Door

To open the avionics bay door:

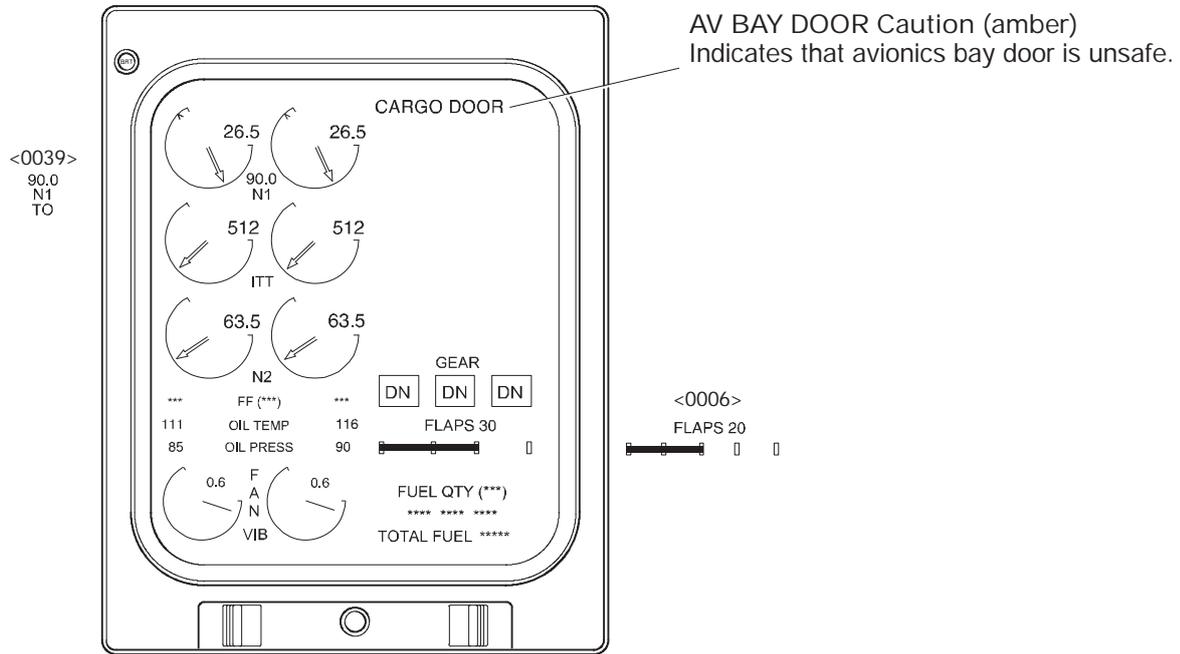
- (1) Press the outer handle trigger plate.
  - The handle ejects from the door recess.
- (2) Rotate the handle 90 degrees counterclockwise to the OPEN position.
  - The fwd and aft latch pins disengage from the door frame latch fittings.
- (3) Push the door up
  - A latch on the roller arms locks the door in the up position.
- (4) Rotate the the outer handle to the CLOSED position and push the handle into the door recess
- (5) Slide the door fwd or aft as required.

### B. Closing the Avionics Bay Door

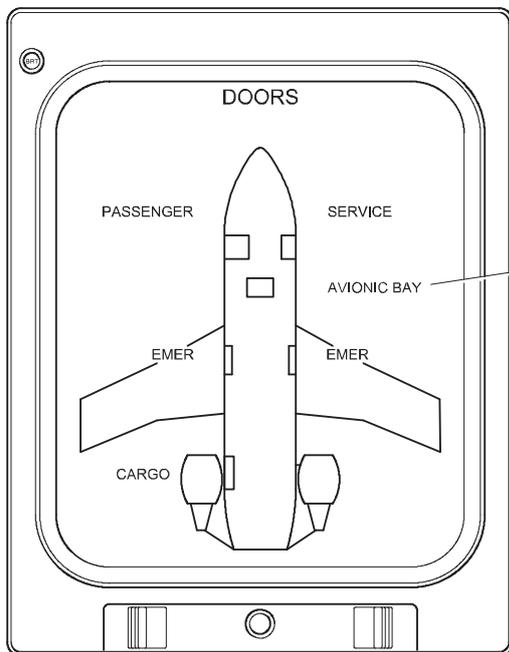
To close the avionics bay door:

- (1) Slide the door above its opening.
- (2) Press the handle trigger plate.
  - The handle ejects from the door recess.
- (3) Rotate the handle to the OPEN position to release the hold-open latch.
- (4) Pull the door fully down to compress the door seal, and rotate the handle to the CLOSED position.
  - The fwd and aft latch pins engage in the door frame latch fittings.
- (5) Push the handle into the door recess.
  - The door handle locks in the stowed position.

# Canadair Regional Jet 100/200 - Doors



Primary Page



- AVIONICS BAY  
Door outline color matches message.
- Amber - Indicates door not latched or outer handle is not stowed.
  - Green - Indicates door is safe.
  - Half intensity magenta - Indicates door status is unknown.

Doors Page

Avionic Bay Door – EICAS Indications <MST>  
Figure 06-40-2

### 1. CARGO COMPARTMENT DOOR

The cargo compartment door is located aft of the cabin area on the left side of the fuselage. The cargo door handle is operated from the outside only and is rotated to the OPEN position to unlatch and to the CLOSED position to latch.

The cargo door opens inward, and up inside the upper fuselage guided by roller and track assemblies on each side of the door. The door movement is assisted by two balance springs and cables.

#### A. Opening the Cargo Door

To open the cargo door:

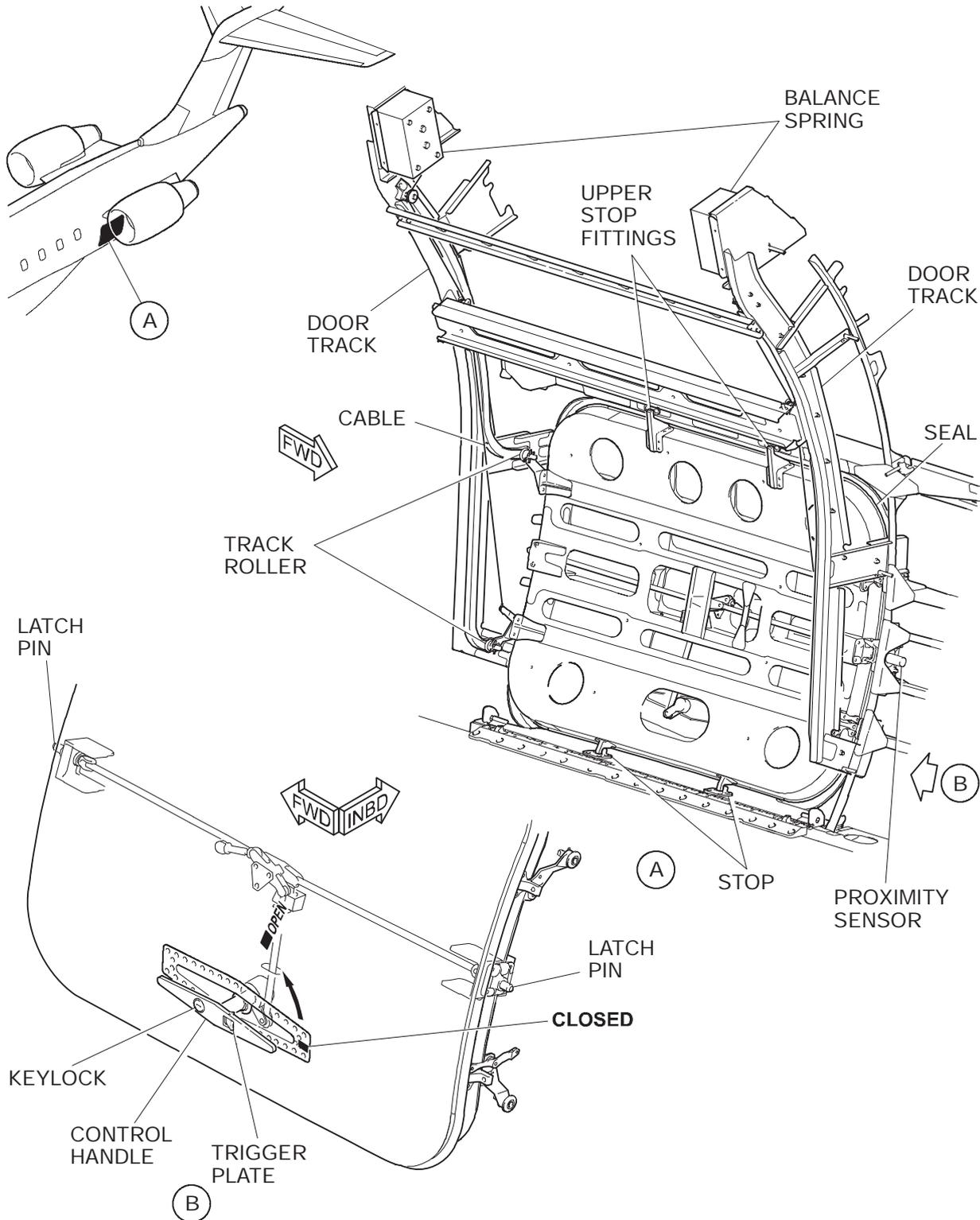
- (1) Press the external handle trigger plate.
  - The handle ejects.
- (2) Rotate the handle counter-clockwise to the OPEN position.
  - The door mechanism unlatches
  - The door moves inward, within the guide tracks.
- (3) Manually push the door fully up.
  - The door moves up, guided by track rollers, and remains in the full open position.

#### B. Closing and Latching the Cargo Door

To close the cargo door:

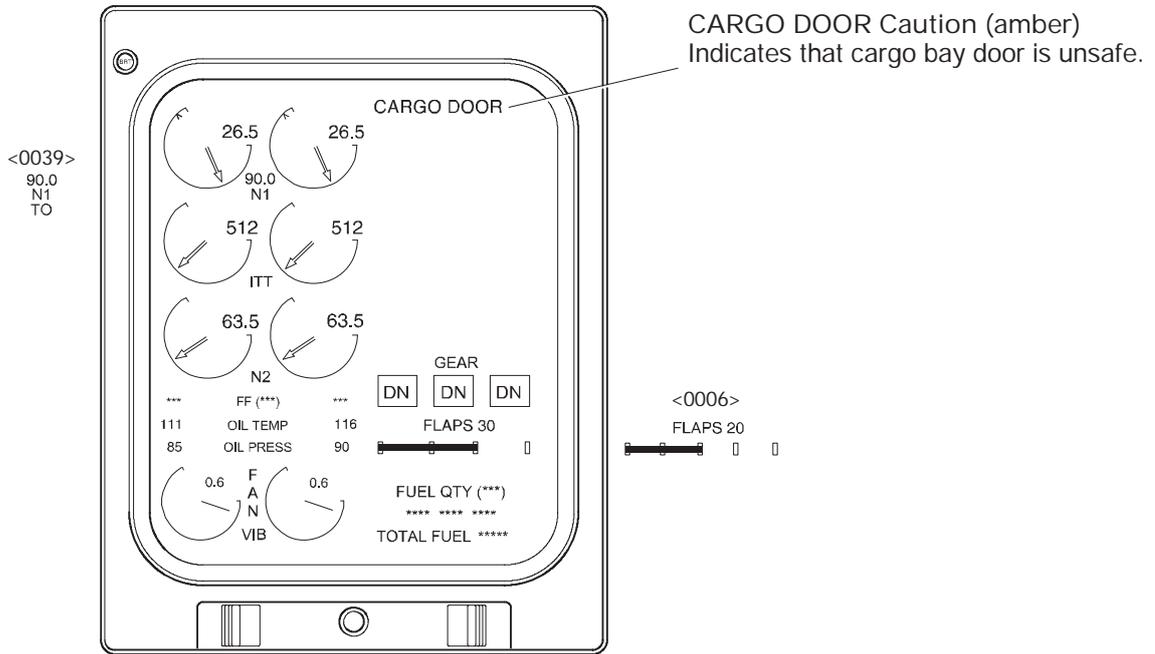
- (1) Manually pull the door down.
  - The door moves down, guided by track rollers.
- (2) Pull the door outward against the stops, and rotate the external handle clockwise to the CLOSED position.
  - The door mechanism latches as the handle reaches the end of its rotation.
- (3) Correctly align the control handle with the door recess and push it fully in.
  - The handle locks in position.

Canadair Regional Jet 100/200 - Doors



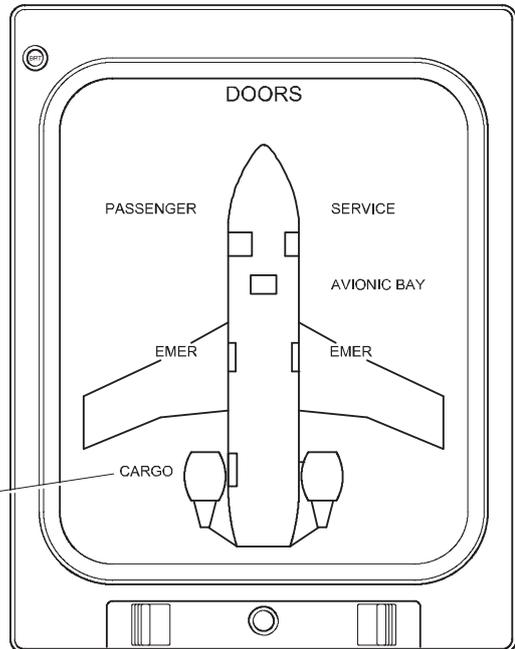
Aft Cargo Bay Door  
Figure 06-50-1

# Canadair Regional Jet 100/200 - Doors



Primary Page

- CARGO  
Door outline color matches message.
- Amber - Indicates door is unsafe.
  - Green - Indicates door is safe.
  - Half intensity magenta - Indicates door status is unknown.



Doors Page

Cargo Compartment Door EICAS Indications <MST>  
Figure 06-50-2

### 1. AFT EQUIPMENT COMPARTMENT DOOR

The aft equipment compartment door is located on the lower aft fuselage. It provides access to the equipment located in the unpressurized aft equipment compartment. The door is hinged at the front and opens downwards. The door is also removeable through quick release hinge pins.

#### NOTE

The aft equipment compartment door is not monitored by the PSEU, therefore there is no cockpit indication of door position.

#### A. Opening the Aft Equipment Compartment Door

To open the aft equipment compartment door:

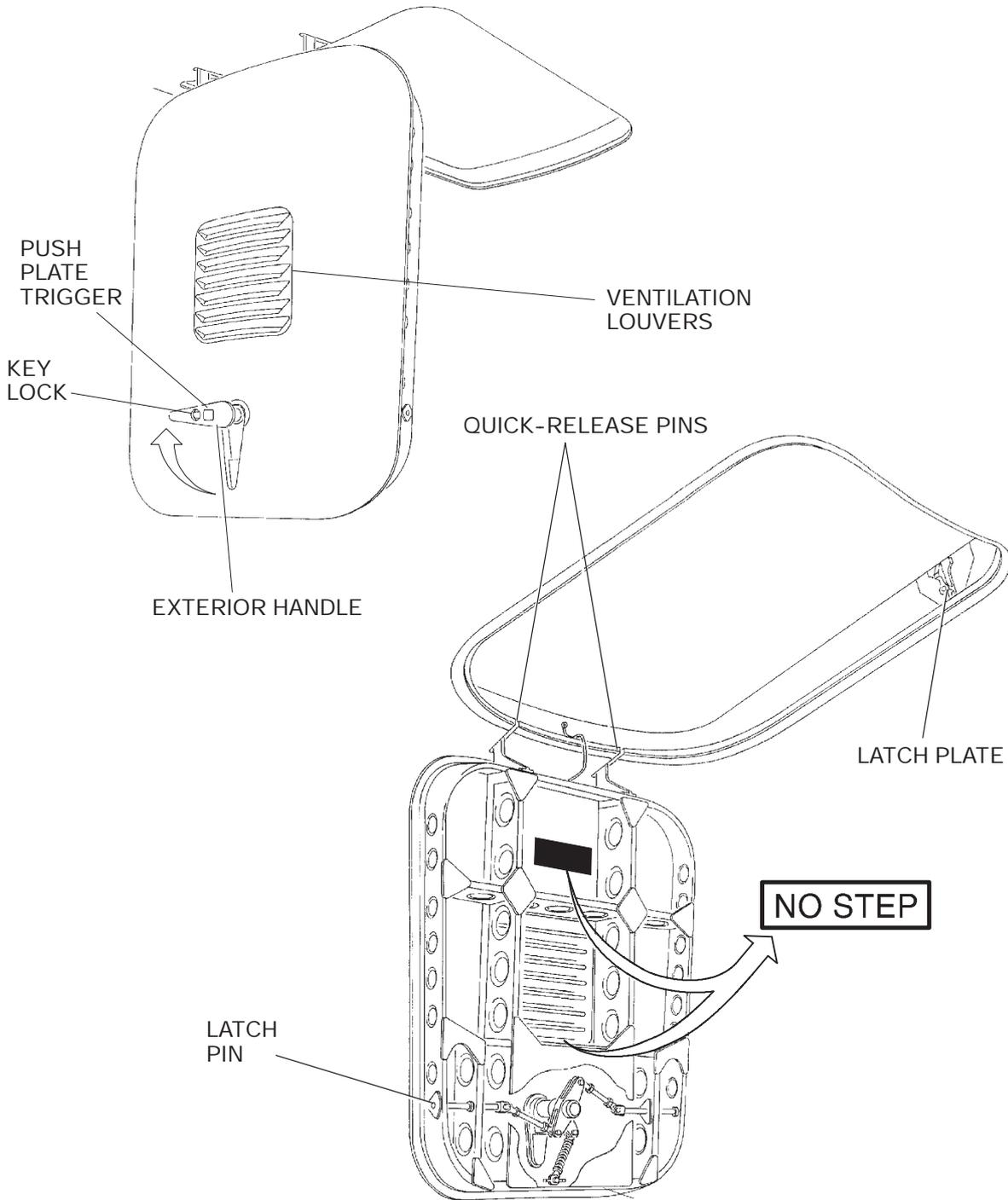
- (1) Press the trigger plate on the handle.
  - The door handle ejects.
- (2) Rotate the handle clockwise.
  - The door mechanism unlatches.
- (3) Manually lower the door to the full down position.

#### B. Closing and Latching the Aft Equipment Compartment Door

To close the aft equipment compartment door:

- (1) Manually move the door up into its opening.
- (2) Rotate the handle counter-clockwise until the handle reaches the end of its travel.
  - The door mechanism latches.
- (3) Push the handle in to latch it in the door recess.

Canadair Regional Jet 100/200 - Doors



Aft Equipment Compartment Door  
Figure 06-60-1

## Canadair Regional Jet 100/200 - Doors

### 1. EMERGENCY EXITS

Emergency evacuation of the cabin area is accomplished through the passenger door, the galley service door, the two overwing emergency exits, and the cockpit overhead escape hatch. All emergency exits can be opened from the inside or outside of the aircraft.

PASSENGER DOOR	36 X 70 Inches	91 X 178 cm	Type I Exit
CREW ESCAPE HATCH	19 X 20 Inches	48 X 51 cm	
GALLEY SERVICE DOOR(S)	24 X 48 Inches	61 X 122 cm	Type I Exit
OVERWING EMERGENCY EXIT	20 X 38 Inches	51 X 97 cm	Type III Exit

### 2. Cockpit Escape Hatch

The cockpit overhead escape hatch provides an emergency exit for the pilots in case of emergency evacuation. The hatch opens inwards and is removeable at the hinge support hooks.

The hatch inner and outer handles are rotated to the OPEN position to unlatch and rotated to the CLOSED position to latch.

#### NOTE

The cockpit overhead escape hatch is not monitored by the PSEU, therefore there is no cockpit indication for the escape hatch position.



## Canadair Regional Jet 100/200 - Doors

### A. Opening the Crew Escape Hatch from Inside

To open the crew escape hatch from inside:

- (1) Press the hatch inner handle retention button.
  - The inner handle ejects.
- (2) Rotate the inner handle (left) to the OPEN position.
  - The hatch mechanism unlatches.
- (3) Manually lower the hatch to the full down position.

### B. Closing and Latching the Crew Escape Hatch from Inside

To close and latch the crew escape hatch from inside:

- (1) Manually lift the hatch into its opening.
- (2) Push the aft part of the hatch up to squeeze the seal.
- (3) Rotate the inner handle (right) to the CLOSED position.
  - The door mechanism latches as the inner handle reaches the end of its rotation.
- (4) Correctly align the inner handle with the door recess.
- (5) Push the handle in until its latched by the retention button.

### C. Opening the Crew Escape Hatch from Outside

To open the crew escape hatch from outside:

- (1) Press the outer handle trigger plate.
  - The outer handle ejects.
- (2) Rotate the outer handle (right) to the OPEN position
  - Carefully lower the hatch fully down, (to avoid injuries to the crew).

### D. Closing and Latching the Crew Escape Hatch from Outside

To close and latch the crew escape hatch from outside:

- (1) Using the door outer handle, manually lift the hatch into its opening.
- (2) Pull up on the outer handle to squeeze the seal
- (3) Rotate the handle (left) to the CLOSED position.

## Canadair Regional Jet 100/200 - Doors

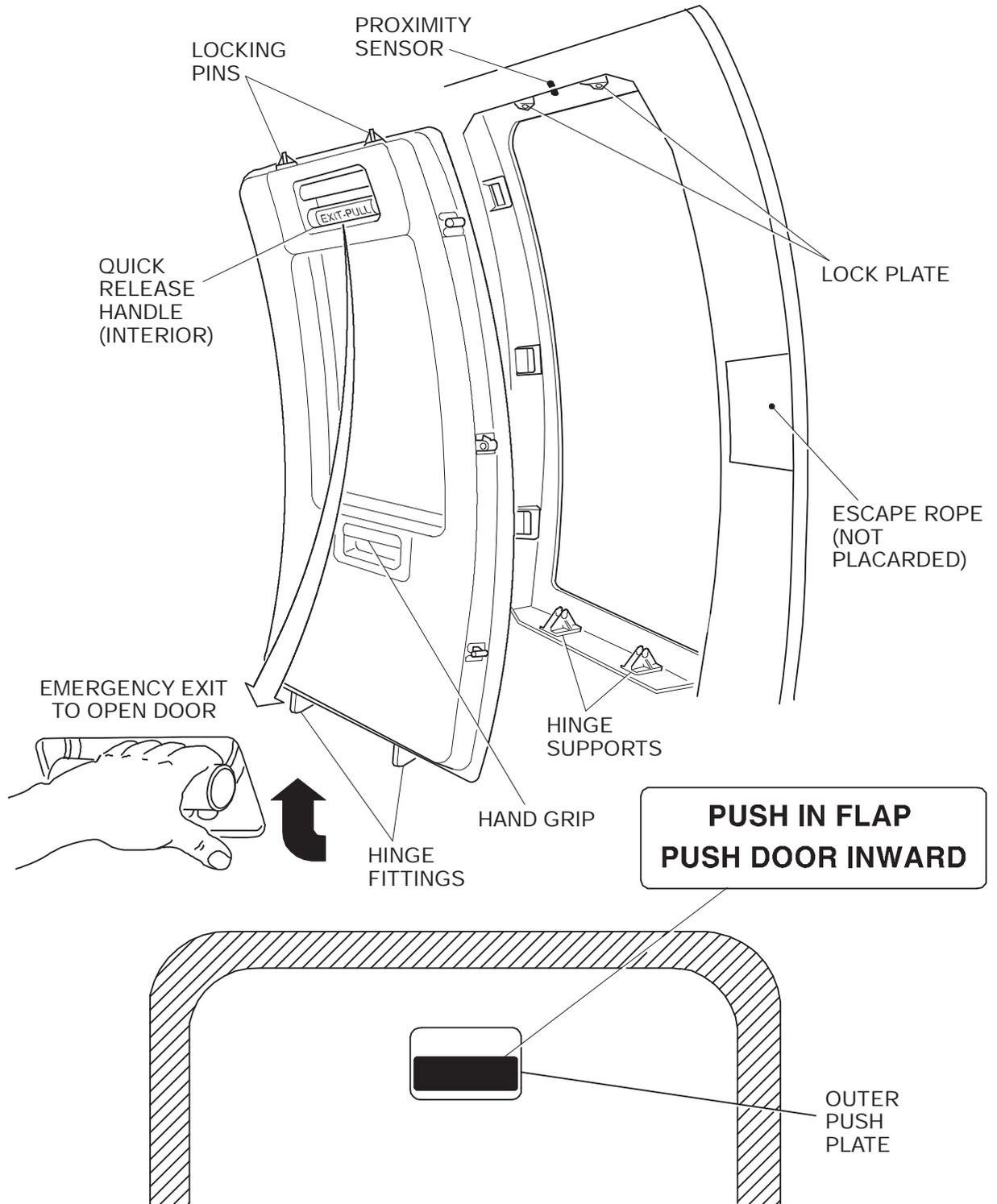
- The door mechanism latches as the outer handle reaches the end of its rotation.
- (4) Correctly align the outer handle with the door recess and push it fully in.
- The outer handle locks in the stowed position.

### 3. Overwing Emergency Exits

The two overwing exits are located on either side of the passenger compartment, above the wings. The overwing emergency exits are provided for passenger evacuation of the cabin area. The overwing emergency exits can be opened from the inside or outside the aircraft.

The left and right overwing emergency exits can be quickly opened, using the single action inner or outer handles located at the upper part of the door. They open inward and lift out off hinge supports. Once opened, the door can be moved to a suitable location, using the two inner handles.

Canadair Regional Jet 100/200 - Doors



Overwing Emergency Exits  
Figure 06-70-2

## Canadair Regional Jet 100/200 - Doors

### A. Opening the Overwing Emergency Exits from Inside

To open the overwing emergency exits from inside:

- (1) Grab the hatch inner handle and pull inward and down.
  - The latch pins retract and the hatch opens inward.
- (2) Grab the lower handle and move the hatch to a suitable location.

### B. Closing the Overwing Emergency Exits from Inside

To close and latch the overwing emergency exits from inside:

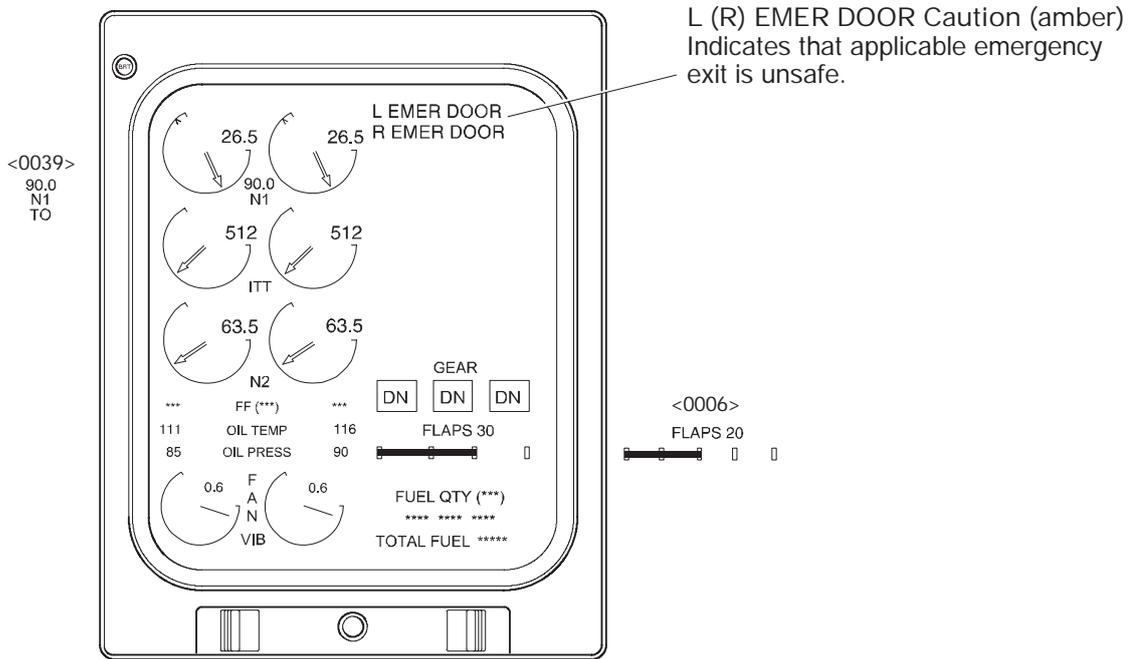
- (1) Manually lift the overwing emergency exit hatch in front of its opening, and set it on its hinge supports.
- (2) Push the upper part of the hatch fully outward to squeeze the seal.
  - The door mechanism latches automatically.
- (3) Push the hatch inner handle fully outward to confirm it is fully latched.

### C. Opening the Overwing Emergency Exits from Outside

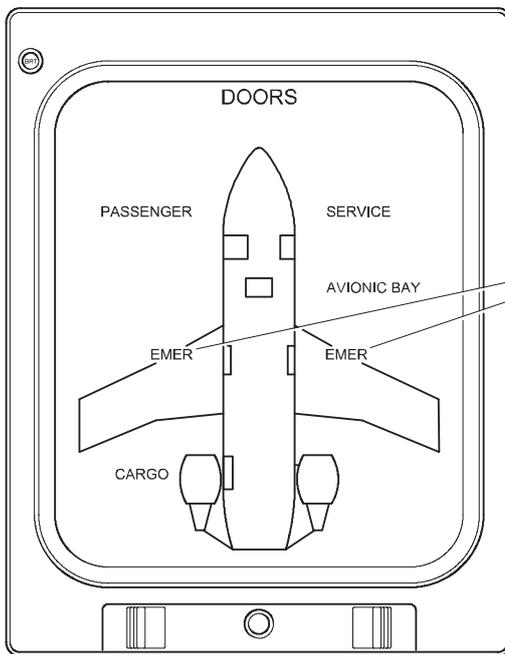
To open the overwing emergency exits from outside:

- (1) Push-in the red outer handle push plate.
  - The latch pins retract and the hatch opens inward.
- (2) Move the hatch to a suitable location.

# Canadair Regional Jet 100/200 - Doors



Primary Page



- EMER  
Door outline color matches message.
- Amber - Indicates exit is unsafe.
  - Green - Indicates exit is safe.
  - Half intensity magenta - Indicates door status is unknown.

Doors Page

Emergency Doors EICAS Indications <MST>  
Figure 06-70-3