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<thead>
<tr>
<th>Section</th>
<th>Page</th>
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<tbody>
<tr>
<td>Introduction</td>
<td>01-02-01</td>
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<tr>
<td>Aircraft Dimension Schematic</td>
<td>01-02-02</td>
</tr>
<tr>
<td>Antenna Location Schematic</td>
<td>01-02-05</td>
</tr>
<tr>
<td>Visual Eye References For Ground Operation</td>
<td>01-02-06</td>
</tr>
<tr>
<td>Steering and Turning Radii</td>
<td>01-02-07</td>
</tr>
<tr>
<td>Steering and Turning Radii Schematic</td>
<td>01-02-07</td>
</tr>
<tr>
<td>Danger Areas</td>
<td>01-02-08</td>
</tr>
<tr>
<td>Airplane Jacking</td>
<td>01-03-01</td>
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<tr>
<td>Towing</td>
<td>01-03-02</td>
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<tr>
<td>Mooring</td>
<td>01-03-03</td>
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<tr>
<td>Crew Seat Assembly</td>
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<tr>
<td>Eye Locator — Seat Adjustment</td>
<td>01-04-02</td>
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<td>Cockpit Layout</td>
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<tr>
<td>Left Side Console</td>
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<td>Right Side Console</td>
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<td>Center Pedestal</td>
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<tr>
<td>Instrument Panel</td>
<td>01-04-07</td>
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<tr>
<td>Circuit Breaker Panels</td>
<td>01-04-08</td>
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<tr>
<td>CB 1 Pilot Circuit Breaker Panel (Typical)</td>
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<td>CB 2 Copilot Circuit Breaker Panel (Typical)</td>
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<td>Components And Operation</td>
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<td>Door Latching Mechanism</td>
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<td>Passenger Door Annunciations</td>
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INTRODUCTION

The Challenger 300 aircraft, manufactured by Bombardier Aerospace, is an all metal, pressurized, low-wing, turbofan-powered monoplane. The high-aspect ratio, fully cantilevered, swept-back wings with winglets are of conventional riveted construction except for the upper section of the winglets, which utilize full-depth honeycomb core bonded to the outer skin. The fuselage is of semimonocoque construction and utilizes a constant circular cross-sectional shape fuselage.

Thrust is provided by two pod-mounted AS907 turbofan engines manufactured by Honeywell. Independent fuel systems supply fuel to the engines with fuel storage provided in wing tanks. Engine-driven hydraulic pumps provide hydraulic power for braking, extending or retracting the landing gear, nosewheel steering, wing flaps, spoilers, thrust reversers, elevator, and rudder. The landing gear system is a fully retractable tricycle-type trailing link landing gear with dual main gear wheels, nosewheel steering, and a brake-by-wire brake control/anti-skid braking system.

The ailerons are manually controlled, and the elevator and rudder are controlled via hydraulic actuators. An electrically actuated trim tab is installed on the left aileron to provide lateral trim. Longitudinal trim is accomplished by changing the incidence of the horizontal stabilizer with an electrically operated linear actuator. Rudder trim is accomplished via an electromechanical actuator which moves the rudder surface independent of the rudder pedal position. Aircraft air-conditioning systems which include an air-cycle machine, provide heating, cooling, and pressurization for the cockpit, passenger compartment, and lavatory.
NOTES

⚠️ Measurement at manufacturer empty weight.

OTHER DIMENSIONS

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<tr>
<td>WING AREA</td>
<td>522 ft² (48.5 m²)</td>
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<tr>
<td>WING BASE</td>
<td>27.8 ft (8.5 m)</td>
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NOTES
⚠️ Measurement at manufacturer empty weight.
PASSENGER COMPARTMENT DIMENSIONS

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<th>Dimension</th>
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<tr>
<td>LENGTH</td>
<td>28 ft 7 in</td>
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<td>WIDTH (FLOOR LINE)</td>
<td>5 ft 1 in</td>
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<td>WIDTH CENTERLINE</td>
<td>7 ft 2 in</td>
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<tr>
<td>HEIGHT</td>
<td>6 ft 1 in</td>
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<td>VOLUME</td>
<td>896 ft³</td>
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<tr>
<td>FLOOR AREA</td>
<td>146 ft²</td>
<td>13.5 m²</td>
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WARNING

Personnel should not stand nearby and in front of the radar antenna when it is transmitting. When the antenna is not scanning, the danger increases.
VISUAL EYE REFERENCES FOR GROUND OPERATION

- **PILOT'S EYE POSITION**
  - 10.5 ft (3.2 m) in/outboard
  - 7.7 ft (2.3 m)

- Approach Visibility
  - 10.5 ft (3.2 m) 19°
  - 7.7 ft (2.3 m) 17°
  - 26.6 ft (8.1 m) 17°
  - 1.8 ft (0.54 m) 17°

- Maximum 139° Vision Aft
  - With head rotated
  - 51°

- Not for Landing
  - Approach Visibility
  - With head moved
  - 0.3 ft (91 mm) outboard

**NOT FOR LANDING**
STEERING AND TURNING RADII

Steering and turning radii are shown below.

NOTE

MAXIMUM STEERING
  SYMMETRICAL AND IDLE THRUST
  NO DIFFERENTIAL BRAKING
  65° STEERING ANGLE
  3° SLIP
  DRY RUNWAY
  SLOW CONTINUOUS TURN
  MAX A/C WEIGHT
  AFT CG
DANGER AREAS

WEATHER RADAR
5 ft
(1.5 m)

15 ft (4.5 m)
FROM INTAKE

15 ft (4.5 m)
FROM INTAKE

APU EXHAUST
500 °F (260 °C)
19 ft (5.8 m)

200 °F (93.3 °C)
200 ft (60.9 m) FROM TAILPIPE

NOTE:
EXHAUST DANGER AREA SHOWN FOR IDLE RPM.
VALUES APPROXIMATELY DOUBLE FOR TAKEOFF RPM.
AIRPLANE JACKING

Three jacking points are provided, one located forward on the fuselage, and one on each wing at the rear spar for jacking the complete airplane.

Gear jacking points are also provided for tire/wheel/brake changes. Jacking procedures are located in the Aircraft Maintenance Manual (Chapter 7).
TOWING

The aircraft maybe towed, with the torque links connected and the Steering Control System de-energized, up to a limit of 120° of nosewheel angle. Should the nosewheel angle exceed this value a NWS LIMIT EXCEEDED CAS message (C) will be displayed. At approximately 123°, the indicator pins on the NLG will be sheared off to provide a physical indication that damage may have been done to the feedback linkage and surrounding area.

For special hangar operations, the torque links may be disconnected to allow towing at any angle, provided the shock strut extension exceeds the dimension in inches of chrome showing, provided on a warning plate. The warning plate is mounted on the nose landing gear to indicate to the ground crew the operational limits for towing. For further towing information refer to the Aircraft Maintenance Manual (chapter 9).

TOWING BAR ATTACHMENT
MOORING

Fittings are provided on the fuselage and on the wing jacking points for mooring the airplane. Use chocks on all wheels when mooring the airplane. Mooring procedures are located in the Aircraft Maintenance Manual (Chapter 10).

MOORING ATTACHMENT POINTS
CREW SEAT ASSEMBLY

The crew seats provide adjustments fore and aft, recline adjustment, height and armrest position.
An eye locator is mounted on the center windshield post to enable seat adjustment for correct eye-to-wheel height. Proper sight line is attained when the rear ball is no longer seen, as it will be covered by the white ball in front.

Correct seat placement is obtained (height, fore, aft) when:
- All flight controls are unrestricted throughout full travel
- Flight instruments and warning lights visible, without being obstructed
- Out-of-cockpit visibility unobstructed
- Seat position comfortable

NOTE:
The support bracket is not shown.
COCKPIT LAYOUT (Cont)

LEFT SIDE CONSOLE
COCKPIT LAYOUT (Cont)

RIGHT SIDE CONSOLE

CFO0100002_003
1. FUEL PANEL
2a. FMS CONTROL DISPLAY UNIT (OPTIONAL)
2b. FMS CONTROL DISPLAY UNIT (STANDARD)
3. REVERSION PANEL
4. AIR CONDITIONING/BLEED PANEL
5. ANTI-ICE PANEL
6. ELECTRICAL PANEL
7. PRESSURIZATION PANEL
8. LIGHTING PANEL
9. FLIGHT SPOILERS HANDLE
10. PITCH DISCONNECT HANDLE
11. THRUST LEVERS
12. ENGINE RUN SWITCH PANEL
13. GROUND SPOILERS/ROLL SPOILERS PANEL
14. TRIM AND STALL PANEL
15. PARK/EMER BRAKE HANDLE
16. SYSTEM TEST PANEL
17. ELT PANEL
18. COCKPIT VOICE RECORDER PANEL
19. CABIN CONTROL PANEL
20. HYDRAULIC PANEL
21. FLAP LEVER
22. MFD CONTROL PANEL (MCP)
23. ENGINE PANEL
24. APU SWITCH
25. LANDING GEAR MANUAL RELEASE HANDLE
26. PAX OXYGEN PANEL
INSTRUMENT PANEL

1. AIR OUTLET
2. PILOT AUDIO CONTROL PANEL
3. PILOT COMPASS/BARO/RUDDER PEDAL ADJUSTMENT
4. MASTER WARNING/CAUTION
5. PILOT DISPLAY CONTROL PANEL (DCP)
6. FLIGHT GUIDANCE PANEL (FGP)
7. STANDBY INSTRUMENT
8. CLOCK
9. COPILOT DISPLAY CONTROL PANEL (DCP)
10. MASTER WARNING/CAUTION
11. COPILOT AUDIO CONTROL PANEL
12. COPILOT COMPASS/BARO/RUDDER PEDAL ADJUSTMENT
13. AIR OUTLET
14. LEFT PRIMARY FLIGHT DISPLAY (PFD)
15. LEFT MULTI FUNCTION DISPLAY (MFD)
16. TAWS WARNING PANEL
17. LANDING GEAR HANDLE
18. RIGHT MULTI FUNCTION DISPLAY (MFD)
19. RIGHT PRIMARY FLIGHT DISPLAY (PFD)
## CB 1 PILOT CIRCUIT BREAKER PANEL (TYPICAL)

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CIRCUIT BREAKER PANELS (Cont)

CB 2 COPILOT CIRCUIT BREAKER PANEL (TYPICAL)
CIRCUIT BREAKER PANELS (Cont)

CB 3 RIGHT SIDE EQUIPMENT RACK CIRCUIT BREAKER PANEL (TYPICAL)

Diagram of circuit breaker panels with labels for various systems and components.
CIRCUIT BREAKER PANELS (Cont)

CB 4 LEFT SIDE EQUIPMENT RACK CIRCUIT BREAKER PANEL (TYPICAL)
CONTROL WHEEL

The pilot and copilot control wheels contain the following switches:

- Autopilot synchronization switch
- Checklist line advance switch
- Transponder identification switch
- Microphone key switch
- Master disconnect switch
- Pitch and roll trim switch

AUTOPilot SYNCHRONIZATION SWITcH

The autopilot synchronization switch enables the pilot to maneuver the airplane without disconnecting the autopilot.

CHECKLIST LINE ADVANCE SWITcH

The checklist line advance switch enables the pilot to advance the electronic checklist on the MFD.

TRANSPONDER IDENTIFICATION SWITcH

The transponder switch activates the transponder IDENT function.

MICROPHONE SWITcH

The microphone switch activates the selected radio transmitter when pulled outboard and the interphone when pushed inboard.

MASTER DISCONNECT SWITcH

The master disconnect switch disengages the autopilot, and deactivates the pitch trim and stall pusher. The stall pusher is not deactivated on JAA approved aircraft. When released, the pitch trim system and pusher are immediately reactivated but the autopilot remains disengaged.

PITCH/ROLL TRIM SWITcH

The pitch and roll trim switch enables the pilot/copilot to control the trim from each control wheel.
PASSENGER DOOR

DESCRIPTION

The passenger door is located on the left side of the aircraft in the forward section of the fuselage and is the primary entry and exit for the aircraft. The passenger door is attached to the fuselage by a goose-neck hinge at the centerline of the door. The door opens out and downward. When closed and locked, the door becomes an airtight plug to prevent loss of pressurization in the fuselage.

COMPONENTS AND OPERATION

The passenger door consists of an integral airstair, stairway lighting, folding handrail, actuator assembly, two telescopic support struts, door lock mechanism, inside door lever, and an outside door handle. When the passenger door is open, the top step of the integral airstair is one step below the cabin floor level.

The passenger door is normally closed electrically using an inside or outside switch. The door can be opened or closed manually.
DOOR ACTUATOR ASSEMBLY

The door actuator assembly consists of an electric motor, inside and outside switch, lifting cable, pulley, and a hand-operated cable. Normal operation of the door is accomplished by the electric motor using the push button switches. In the event of loss of power to the motor, the door can be operated manually with the use of the inside lever, outside handle, and the hand-operated cable.

HANDRAIL

A two-part folding handrail is installed on the aft side of the passenger door. As the door opens, the handrail unfolds parallel to the airstair. A nylon stabilizer is mounted between the base of the handrail and the airstair to prevent unwanted movement of the handrail. As the door closes, the handrail folds at the hinge point.

DOOR SEAL

A flexible blade-type door seal constructed of silicone rubber and fabric is installed in the frame channel in the fuselage. An airtight seal is formed when the passenger door is closed and latched. The door seal prevents a rapid decrease of cabin pressure if any part of the seal becomes unserviceable. The door seal also keeps water out of the fuselage if ditching occurs.
NORMAL OPERATION

To open the passenger door from the ground, use the outside handle in the center of the door. To operate the handle, push the spring-loaded finger-flap inward and pull the handle out of the recess in the door. Continue to lift the handle upwards until the handle stops, (approximately 110° travel). As the handle is lifted upwards, the vent flap in the door opens to equalize cabin pressure. At the end of the handle travel, the latch mechanism disengages the door locks allowing the door to open by gravity. As the door opens downward, the actuator assembly functions as an inertia-reel to allow the door to open slowly.

To close the passenger door from the ground, open the door-switch access panel forward of the passenger door and push the switch to activate the actuator motor. The lifting cable attached to the door wraps into the actuator housing to close the passenger door. As the door closes, a vent flap in the handle closes to seal cabin pressure. Pull the external door handle downward and into the stowed position in the recess in the door. The door then can be locked with a key on the outside handle.

To open the passenger door from inside the aircraft, rotate the inside handle to the full up position, (approximately 100° travel). The door locks disengage and allow the door to open by gravity. When the door is unlocked, a red flag indicator shows through a window in the handle. To close the passenger door from inside the aircraft, push the switch located on the bulkhead forward of the door. The switch must be held in at least 7 seconds before the electrically driven motor begins to raise the door into the closed position. To lock the door, rotate the inside lever downward until it stops (approximately 100° travel). When the door is locked, a green flag indicator will show through the window in the handle.

NOTE: In order to prevent a cabin pressure bump during door closure, it is recommended that the air conditioning supply be selected OFF prior to the door being closed. Following door closure, the air conditioning supply can be reselected.

MANUAL OPERATION

In the event of loss of power to the actuator, the passenger door can be closed manually.

To close the passenger door manually from outside the aircraft, lift the door upward to the closed position. To engage the door locks, push the outer door handle into the recess in the door.

To close and lock the passenger door from inside the aircraft, raise the hinged cover located on top of the actuator housing and pull up on the T-handle. Pulling on the cable handle a number of times wraps the door lifting cable into the actuator housing and raise the passenger door into the closed position. To lock the door, rotate the inside handle downward until it stops. When the door is closed, a green flag indicator shows through the window in the handle.
DOOR LATCHING MECHANISM

The door latch mechanism consists of two cams which are part of a primary shaft installed horizontally on the door structure. The primary shaft turns with inputs from the internal handle and the external handle. The internal handle attaches directly to the primary shaft. The external handle connects to the primary shaft through control rods and a lever.

The latch mechanism has three different primary functions as follows:

- Vent flap function
- Door lifting function
- Open lock function

VENT FLAP FUNCTION

It is not possible to open the cabin door if some cabin pressure remains. A pressure lock lever, which connects to the vent flap through a control rod and link, prevents movement of the inner handle and the vent flap stays closed. After cabin pressure is released, the springs allow the vent flap to open. The pressure lock disengages, and the door handles can then operate. The springs also insure that the vent flap opens if a part of the operating mechanism becomes unserviceable or disconnects. If one spring breaks, the other two springs can open the vent flap to release cabin pressure.

DOOR LIFTING FUNCTION

Another cam on the primary shaft of the latch mechanism causes the door to move vertically. As the cam turns, force is applied to a lever which connects to a lifting shaft installed parallel to the primary shaft. At each end of the lifting shaft is a lever which connects to the door hinge mechanism. Movement of the two levers causes the door to move vertically in relation to the hinge.

The lifting shaft has a locking ratchet cam connected to the vent flap cam which stops vertical movement of the door unless the vent flap is fully open. A pressure lock system also stops more movement of the primary cam shaft if the vent flap is kept closed by too much cabin pressure. When the pressure decreases sufficiently, the springs can open the vent flap and the locking cam moves to let the lifting shaft turn.

OPEN-LOCK FUNCTION

When the door is fully open it is not possible to close it until a system of mechanical locks is released. This lock mechanism also prevents too much vertical movement of the steps when entering and exiting the aircraft.

When the door is fully open, the primary lock engages the locking cam on the external handle pivot shaft.

PASSENGER DOOR ANNUNCIATIONS

A PASSENGER DOOR status (S) CAS message is displayed if the passenger door is not fully closed and the following conditions exist:

- The aircraft is on the ground with the left engine run switch in the OFF position
- The aircraft is on the ground, the passenger door handle is not stowed, and both engines are not running

A PASSENGER DOOR caution (C) CAS message is displayed if the passenger door is not fully closed and the following conditions exist:

- The aircraft is on the ground with the left engine run switch in the On position
- The aircraft is in flight and the passenger door rollers are not fully engaged into the fitting guides
EMERGENCY EXIT

DESCRIPTION

The emergency exit is located over the wing on the right side of the aircraft. The emergency exit is a Type III escape hatch that measures 20 inches wide by 36 inches high and weighs approximately 45 lbs. The emergency hatch is a removable plug-type hatch, held in place by a two-pin locking mechanism and by the force of cabin pressure. A security pin can be installed on the inside of the aircraft at one of the locking pins to prevent unauthorized entry from the outside. The security pin has a small flag attached which states REMOVE BEFORE FLIGHT.

NOTE: The emergency hatch can be opened and removed from inside or outside of the aircraft, but must be installed from inside the aircraft.

COMPONENTS AND OPERATION

INSIDE REMOVAL

To remove the hatch from inside the aircraft, use the upper latch handle placarded EXIT-PULL. Remove the cover from the latch handle and pull the spring-loaded handle inward to retract the locking pins in the top of the hatch. Rotate the hatch downward into the aircraft, (approximately 12 inches). Using the latch handle and the handhold lift the hatch upward and away from the hinges at the bottom of the hatch. Place the hatch clear of the exit to allow passage.
EMERGENCY EXIT (Cont)

OUTSIDE REMOVAL

To remove the emergency hatch from outside of the aircraft, push in on the spring-loaded latch panel placarded EMERGENCY DOOR PUSH TO OPEN DOOR OPENS INWARD. While holding the panel in, push in on the hatch to rotate the top of the hatch into the aircraft (approximately 12 inches). With both hands, lift the hatch upward and away from the hinges at the bottom of the hatch. Move the hatch clear of the emergency exit to allow passage.

INSTALLATION

The emergency exit hatch must be installed from inside the aircraft. To install the emergency hatch, the passenger seat located nearest the emergency hatch must be in the full inboard position.

Install the emergency hatch into the frame in the fuselage in the opposite order of the Inside Removal procedure. Ensure that the seal around the door is seated correctly and the locking pins at the top of the hatch are fully extended into the frame. The locking pins are fully extended when the latch handle is fully retracted. Install the cover for the latch handle and secure the hook and loop fasteners for the cover.

EMERGENCY EXIT ANNUNCIATIONS

An EMERGENCY EXIT (C) CAS message is displayed if the proximity sensor detects that the emergency hatch is not completely closed and the locking pins fully engaged.

CABIN EQUIPMENT

DESCRIPTION

Although individual cabin layouts will vary, cabin interiors will have the following equipment installed:

- Passenger Service Units
- Arm Ledge
- Cabin Controlled Lighting
- Galley
- Tables
- Entertainment Center
- Lavatory

COMPONENTS AND OPERATION

PASSENGER SERVICE UNITS

Passenger service units are installed on both sides of the main cabin and incorporate the following items:

- Manually adjustable air vents for each seat position
- Drop down oxygen masks for each seat position
- Manually adjustable reading and table lights for each seat location
- Upwash and downwash LED lighting
- Cabin entertainment system speakers
- Cabin temperature sensor

ARM LEDGE

An arm ledge is installed on the left and right sides of the cabin below the window panels and incorporate the following items:

- Dual drink holder
- Bi-fold executive table
- Storage box for general storage and/or phone provisions
- Cabin handset (location depending on cabin layout)
- Switch panels for cabin lighting and entertainment system
- 115V 60 Hz electrical outlet and fax/modem port (location depending on cabin layout)
- VIP switch (location depending on cabin layout)
CABIN EQUIPMENT (Cont)

LIGHTING

A remote switch panel is located in the cockpit center pedestal to control cabin and entry lights, cabin DC and cabin AC power.

Interior lighting consists of airstair and entry lights, crew closet and forward wardrobe lights, galley lighting, cabin upwash and downwash lighting, cabin reading and table lights, lavatory light, lavatory upwash lighting, lavatory mirror lights, baggage compartment lighting, emergency lighting, NO SMOKING, FASTEN SEAT BELT, and RETURN TO SEAT lights.

GALLEY

The galley is installed in the forward entry area of the cabin on the right side and provides facilities for stowing and preparing food and beverages. The galley contains an insulated ice compartment, two AC outlets, two hot liquid containers and cup dispensers. Lighting, liquid waste lines and ventilation is also provided. A magazine rack is installed on the aft side of the galley and also contains the subwoofer installation.

TABLE

Three bi-fold pullout retractable executive tables are provided as well as one right hand aft plug in table (near the emergency exit). A closeout conceals the table cavity when the tables are deployed.

ENTERTAINMENT CENTER

AUDIO SYSTEM — Audio is provided through the cabin speakers and/or headphones from the audio/video system. Components include eight mid/high range speakers and two subwoofer speakers. A single CD changer is operated by two remote controlled transmitters located in the left forward wardrobe cabinet above the monitor or in the forward side of the right aft partition above the monitor. A handheld remote control is also provided.

VIDEO SYSTEM — The LCD monitors are capable of displaying movies or other pre-recorded media. Components consist of a single channel DVD player and two 15 inch flat screen monitors. One is installed on the aft side of the left forward wardrobe cabinet and the other is installed on the forward side of the right aft cabin partition. Also installed is a chime/page-audio/video amplifier. An Airshow 400 or 4000 system is included as part of the entertainment center. The Airshow 4000 offers enhanced graphics, cockpit monitor, and interface to telephone or satellite systems. Refer to the applicable Airshow Operator’s Manual for further system description.

LAVATORY

The lavatory is located in the aft cabin with the sink, mirror, storage compartment, soap dispenser, electrical outlet and ordnance signs for occupants on the left side. On the right side is an electric flushing toilet with timer and overboard servicing, storage area, tissue and trash drawer. Access to the aircraft oxygen bottle(s) is also in this area behind an upper closeout panel. Fire extinguisher storage is also provided behind the closeout panel.

The toilet switch panel is located on the left side of the right lavatory partition. The switches control the toilet flush, reading light, upwash lighting, mirror light, and a lav call that is annunciated in the cockpit and galley.

Overboard service is connected to the toilet to enable service from outside the aircraft. The connector uses a standard airline service cart. The service instruction placard is installed in the lavatory servicing compartment.
CARGO BAY DOOR

DESCRIPTION

The cargo bay door is a plug-type door and is located forward of the left engine nacelle. The cargo door opens inward and upward to the overhead position above the doorway.

The cargo door is accessible from inside the aircraft through the passenger compartment but is not certified as an emergency exit.

COMPONENTS AND OPERATION

The cargo door assembly consists of a direct-coupled inner and outer handle, trigger-lock mechanism, fore and aft locking pin, balance springs and cables, and a roller/track assembly.

To open the door from inside the aircraft, raise the spring loaded cover on the center of the handle and push the handle towards the door pane and turn the handle clockwise. To open the cargo door from outside the aircraft, push the trigger-lock in the outer handle to release the handle from the recess in the door. Rotate the handle 90° counterclockwise to retract the locking pins and open the door inward. As the door moves inward, the rollers engage into the door tracks allowing the door to be lifted and latched in the overhead position. A balance spring/cable assembly on each side of the door takes the weight off of the door as the door is lifted into the overhead position.

CARGO BAY DOOR ANNUNCIATIONS

A CARGO DOOR (C) CAS message is displayed if the aircraft is on the ground and the left engine run switch is selected ON. Otherwise, CARGO DOOR (S) CAS message is illuminated.
DESCRIPTION

The service doors allow accessibility to the various systems and components that require servicing and/or inspection.
SERVICE DOORS (Cont)

COMPONENTS AND OPERATION

GROUND-POWER DOOR
The ground-power door is located on the right side of the aircraft in the aft wing-fuselage fairing, and allows access to the service panel for ground power supply.

OXYGEN FILL/INDICATOR DOOR
The oxygen fill/indicator door is located on the right side of the fuselage at the aft edge of the wing, and allows access for the oxygen indicator and servicing.

REFUEL/DEFUEL DOOR
The refuel/defuel door is located in the forward right wing-fuselage fairing, and allows access to the refuel/defuel adapter.

REFUEL/DEFUEL CONTROL PANEL DOOR
The refuel/defuel control panel door is on the right side of the aircraft in the forward wing-fuselage fairing, and allows access to the computer control panel for refueling and defueling.

LAVATORY WASTE DOOR
The lavatory waste door is located on the right side of the aircraft in the aft wing-fuselage fairing, and allows access to the lavatory-waste service panel.

COMMUNICATION PANEL DOOR
The communication door is located left of the nose wheel, and allows access to the ground communication panel.

OUTFLOW VALVE DOOR
The outflow valve door is located in the forward right wing-fuselage fairing and allows access to the outflow valve panel.

BATTERY BAY DOOR
The battery bay door is located on the left side of the aircraft in the aft wing-fuselage fairing, and allows access to the aircraft main batteries.

A proximity sensor on the battery access door prompts BATTERY BAY DOOR (C) CAS message if the door is not closed.

GROUND AIR SERVICING DOOR
The ground-air servicing door is located right of the centerline toward the rear of the fuselage, and allows access to the ground air servicing connection.
SERVICE DOORS (Cont)

AFT EQUIPMENT BAY DOOR

The aft equipment bay door is located on the centerline of the aircraft at the rear of the fuselage. The door is hinged in front and opens downward. The door has a lever-type latch mechanism. A support strut on the door can be connected to the fairing bracket to stabilize the door in the open position. The strut must be disconnected from the fairing bracket to close the door.

AFT EQUIPMENT BAY DOOR ANNUNCIATION

An AFT EQPT BAY DOOR (C) CAS message is displayed if the aft equipment bay door is not closed.
DOOR WARNING SYSTEM

DESCRIPTION

The door warning system monitors the position of the following doors while the aircraft is on the ground or in flight:

- Passenger door
- Emergency exit hatch
- Cargo bay door
- Aft equipment bay door
- Battery bay door

COMPONENTS AND DESCRIPTION

A magnet with an electronic proximity sensor is mounted at each door. The proximity sensors interface with the proximity sensor electronic unit (PSEU), data concentrator unit (DCU), and the multifunction display. The flight crew receives a single chime and a visual CAS annunciation if a door is not in the correct position under specific conditions. For the specific conditions, refer to the annunciation description for each door in this section.

On the ground the CAS displays EMERGENCY EXIT (C) and other door warnings in amber. However, if the left engine is set to RUN, the PASSENGER DOOR (C) and CARGO DOOR (C) will also be illuminated. In flight, the door warnings on the CAS are displayed in amber.
The following door and exit messages are shown on the EICAS. In the table below are the messages, meanings, inhibits, and aural warnings along with a brief explanation of each message.

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<td>CARGO DOOR</td>
<td>TO/LAND</td>
<td>The electronic proximity sensor is indicating that the cargo door is not in the correct position when the airplane is in flight</td>
<td></td>
</tr>
<tr>
<td>EMERGENCY EXIT</td>
<td>TO/LAND</td>
<td>The electronic proximity sensor is indicating that the emergency exit is not in the correct position when in flight</td>
<td></td>
</tr>
<tr>
<td>PASSENGER DOOR</td>
<td>LAND</td>
<td>The electronic proximity sensor is indicating that the passenger door is not in the correct position when in flight</td>
<td></td>
</tr>
<tr>
<td>CARGO DOOR</td>
<td>TO/LAND</td>
<td>The electronic proximity sensor is indicating that the cargo door is not in the correct position when the airplane is in on the ground</td>
<td></td>
</tr>
<tr>
<td>PASSENGER DOOR</td>
<td>TO/LAND</td>
<td>The electronic proximity sensor is indicating that the passenger door is not in the correct position when the airplane is in on the ground</td>
<td></td>
</tr>
</tbody>
</table>