



Bombardier CRJ 700 Panels & Checklists

Version 2

by
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Aircraft Specifications & Performance Parameters

Maximum Gross Weight (MGW): 72,500 lbs

Empty Weight: 43,200 lbs

Useful Load: 18,800 lbs

Fuel Capacity: 3,036 US gallons

Cruise Speed: 515 KIAS / 0.78 Mach (592 mph / 952 kph)

Service Ceiling: 41,000 feet / 12.497 meters

Maximum Range: 1,702 nm / 3,252 km

Seating: 70

Length: 106 feet, 8 inches / 32.5 meters

Wingspan: 76.3 feet / 23.2 meters

Height: 24 feet, 10 inches / 7.6 meters

Aircraft Performance

V_{MO} – Maximum Operating Speed 335 KIAS / .85 Mach

V_A – Turbulent Air Penetration Speed 280 KIAS / .85 Mach

V_{LE} – Maximum Gear Extension Speed 220 KIAS / .41 Mach

Flap Position Speeds

1 degree 200 KIAS

8 degrees 200 KIAS

20 degrees 185 KIAS

30 degrees 165 KIAS

45 degrees 140 KIAS

V_1 – Takeoff Decision Speed, dry runway

Standard temperature, sea level pressure altitude

50,000 lbs (flaps 8) 144 KIAS

50,000 lbs (flaps 20) 134 KIAS

V_R – Rotation Speed, dry runway

Standard temperature, sea level pressure altitude

50,000 lbs (flaps 8) 144 KIAS

50,000 lbs (flaps 20) 135 KIAS

V_2 – Minimum Climb Speed

Standard temperature, sea level pressure altitude

50,000 lbs (flaps 8) 144 KIAS

50,000 lbs (flaps 20) 135 KIAS

V_{REF} – Landing Approach Speed, gear down

59,000 lbs (flaps 45) 125 KIAS

61,000 lbs (flaps 45) 128 KIAS

73,000 lbs (flaps 45) 141 KIAS

77,000 lbs (flaps 45) 145 KIAS

Required Runway Length

Takeoff, flaps 5: 5,500 feet / 1,676 meters

Landing, flaps 30: 1,478 feet / 1,478 meters

CRJ 700 2D Cockpit Panels and Switches

Left Glareshield

1. Master Warning
2. Master Caution
3. Stall Warning
4. Pull up Warning
5. Ground Proximity Warning
6. Left Engine Fire Warning
7. Bottle 1 armed. Push to discharge

Centre Glareshield (Flight Control Panel)

8. Course selection knob (Set NAV 1)
9. Flight Director button
10. Auto Pilot Engage button
11. Auto Pilot Disengage button
12. Mach Speed select button
13. Yaw damper button
14. Speed Set button (used with AP)
15. Speed Bug knob (to set desired speed)
16. Approach select button (for ILS approaches)
17. Back Course select button
18. Heading Select button (used with AP)
19. Heading Hold Select bug
20. NAV selection button (used with AP)
21. ½ bank selection button
22. Altitude Set button (used with AP)
23. Altitude select bug
24. Vertical speed selector



Pilot's side panel

Primary Flight Display

Multifunction Display

Engine Instrument Display

Pilot's side panel

25. Clock
26. NAV/GPS switch
27. MFD display modes
28. Baro pressure select
29. Sets decision height
30. Sets MFD needles

Primary Flight Display

31. IAS (speed) tape
32. IAS bug selected
33. IAS trend
34. Decision Height selected
35. Altitude selected
36. Altitude tape
37. IAS selected with AP
38. Radio height
39. Baro pressure set
40. Set Nav data
41. Selected heading bug
42. CDI needle
43. Vertical speed indicator



44. Settings annunciator
45. Current heading
46. Heading select bug
47. CDI VOR needle (green)
48. NAV 1 course indicator

Engine Instrument Display

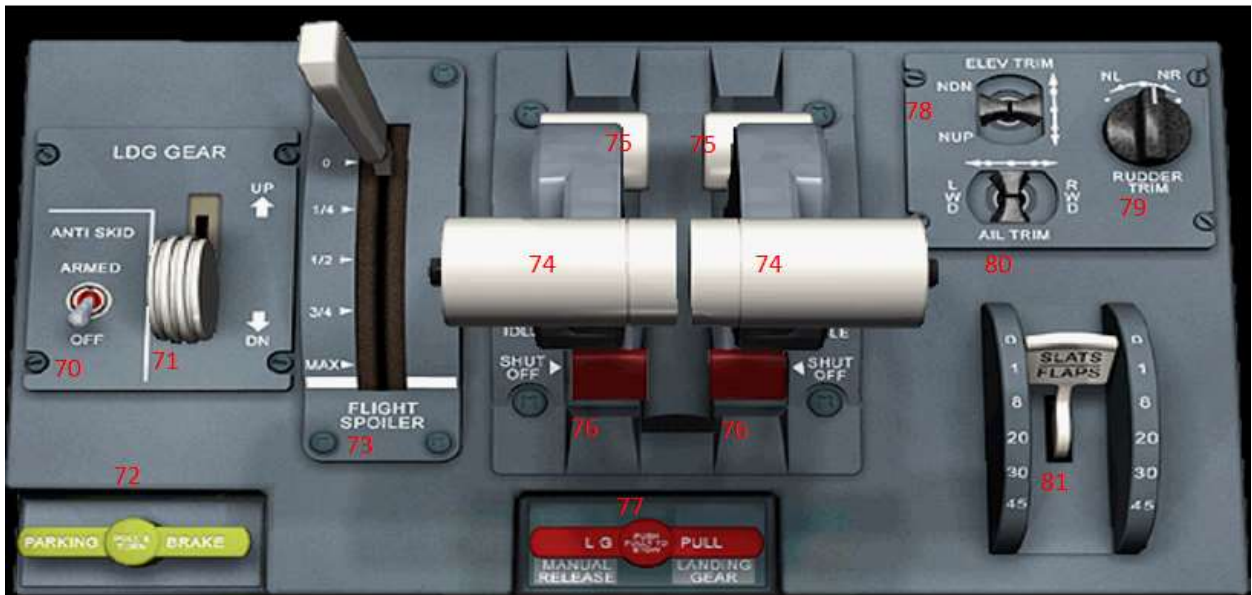
49. N1 compressor speed
50. Engine temperature
51. N2 turbine speed
52. Oil pressure gauge
53. Landing gear indicator lights
54. Flap settings indicator
55. Fuel quantity indicators

Overhead Panel



- | | | |
|-----------------------------|----------------------------------|------------------------------|
| 56. Battery master switch | 60. Fuel boost pump switches | 65. APU Start/Stop switch |
| 57. APU generator switch | 61. Fuel crossfeed switches | 66. Bleed valves switch |
| 58. Gen 1 & Gen 2 switches | 62. Engine 1 Start/Stop switches | 67. Anti-ice switches |
| 59. Hydraulic pump switches | 63. Engine 2 Start/Stop switches | 68. Passenger signs switches |
| | 64. Master Ignition switch | 69. Aircraft lights switches |

Centre Pedestal



- | | | |
|-------------------------------|---------------------------------|--------------------------|
| 70. Anti skid switch | 74. Thrust levers | 78. Elevator trim switch |
| 71. Landing gear lever | 75. Reverse thrust levers | 79. Rudder trim switch |
| 72. Parking brake lever | 76. Fuel flow valves | 80. Aileron trim switch |
| 73. Spoiler/speed brake lever | 77. Landing gear manual release | 81. Flaps lever |



CRJ 700 CHECKLISTS

Before Start Checklist		
Engine Starter Switch.....	SET	72
Throttle.....	IDLE	74
Landing gear Lever.....	DOWN	71
Generators 1 & 2.....	OFF	58
Battery Master.....	ON	56
Panel Lights.....	AS REQUIRED	69
Avionics Master.....	ON	
Hydraulic Pump Switches	CHECK ON	59
Fuel Quantity.....	CHECK	65
APU.....	START	65
APU/Generator.....	ON	57
Flaps.....	UP	81
Spoilers.....	RETRACTED	73
Flight Controls.....	FREE & CORRECT	
Engine Gauges.....	SELECT ON EICAS	
Anti-ice Switches.....	OFF	67
Passenger Signs.....	ON	68
ATIS.....	CHECK	
Altimeter.....	SET	39
Takeoff Briefing.....	COMPLETED	
Clearance.....	OBTAIN	
Rotating Beacon.....	ON	69
Jetway.....	DETACH	
Doors.....	CLOSE	
Pushback.....	AS REQUIRED	

ITT.....	CHECK	50
Oil Pressure.....	CHECK	52
Engine Starter Switch.....	OFF	62
Engine 2 Starter Switch...	ON	63
N1 Increase.....	CHECK	49
ITT.....	CHECK	50
Oil Pressure.....	CHECK	52
Engine Starter Switch.....	OFF	62
Gen 1 & Gen 2 Switches...	ON	58
Master Ignition.....	OFF	64
APU Generator.....	OFF	57
APU.....	OFF	65

After Start Checklist		
Lights.....	AS REQUIRED	69
Anti-ice Switches.....	AS REQUIRED	67
Trim (check EICAS).....	SET FOR TAKEOFF	78
Flight Director.....	ON	9
Heading Hold.....	ON	18
Heading Bug.....	SET FOR T/O	19
Altitude Hold.....	ON	22
Altitude Bug.....	SET FOR DEPART	23
Nav Radios.....	SET FOR DEPART	
Taxi clearance.....	OBTAIN	
Transponder.....	SET & STANDBY	
Parking Brakes.....	RELEASED	72

Engine Start Checklist		
Parking Brake.....	SET	72
Throttles.....	IDLE	74
Engine Area.....	CHECK ALL CLEAR	
Fuel Valves.....	SELECT ON EICAS	
Fuel Flow Valves.....	OPEN	76
Fuel.....	ON	60
Engine Gauges.....	SELECT ON EICAS	
Master Ignition.....	ON	64
Engine 1 Starter Switch	ON	62
Continued		
N1 Increase.....	CHECK	49

Taxi Checklist		
Brakes.....	CHECK	
Gyro.....	CHECK IN TURNS	
Turn Coordinator.....	CHECK IN TURNS	

Before Takeoff Checklist		
Flight Instruments.....	SET (PFD)	
Engine Instruments.....	CHECK (EICAS)	
Takeoff Data V1, Vr V2.....	REVIEW	
Flaps.....	SET 8 DEGREES	81
Spoilers.....	CHECK RETRACTED	73
Landing Lights.....	ON	69
Strobe Lights.....	ON	69
Anti-ice.....	AS REQUIRED	67
Transponder.....	ON	
Autopilot.....	CHECK OFF	11
Takeoff Clearance.....	OBTAIN	

Takeoff Checklist		
Parking Brake.....	RELEASED	72
Brakes.....	HOLD	
Throttles.....	TO 50% N1	
Throttles.....	FULL	
80 Knots.....	CHECK	
V1.....	144 KIAS MAX	
Vr	144 KIAS MAX	
Pitch.....	15° NOSE UP	
V2.....	154 KIAS	
Positive Rate of Climb.....	GEAR UP	72
Pitch.....	10° NOSE UP	
Throttle.....	APPROX 80% N1	
Speed.....	170 KIAS	
At 1000 feet.....	Flaps SET 1°	81
At 200 KIAS.....	Flaps UP	81
Speed (below 10,000 ft)	250 KIAS	15

Climb Checklist		
Autopilot.....	ON	10
Autothrottle.....	AS REQUIRED	
Pitch.....	+ 10 DEGREES	
Engine Instruments.....	CHECK	
Pressurization.....	CHECK AUTO	66
Landing Lights.....	OFF Above 10000 feet	69
Autothrottle.....	280 KIAS >10000 feet	
Anti-ice.....	ON Above 10000 feet	67
Nav/GPS Select.....	NAV OR GPS	26
Flight Level 180.....	Altimeter 29.92	39

Cruise Checklist

Autothrottle.....	MACH HOLD	12
To FL180.....	.67 MACH (330)	
To FL240.....	.75 MACH (330)	
To FL 280.....	.78 MACH (320)	
To FL 330.....	.78 MACH (285)	
Lights.....	AS REQUIRED	69
Seat Belt Sign.....	OFF	68
No Smoking Sign.....	CHECK ON	68

Descent Checklist		
Passenger Signs.....	ON	68
Autothrottle	SET	
To FL 240.....	.75 MACH (330)	
To FL180.....	.67 MACH (330)	
Altimeter.....	SET BELOW FL180	39
Anti-ice.....	ON < 20°C OAT	67
Landing Lights.....	ON <10000 feet	69
Airspeed (below 10000 feet)	<250 KIAS	
Airspeeds (V _{ref}).....	COMPUTE	
59,000 lbs (flaps 45).....	125 KIAS	
61,000 lbs (flaps 45).....	128 KIAS	
73,000 lbs (flaps 45).....	141 KIAS	
77,000 lbs (flaps 45).....	145 KIAS)	
Clearance.....	OBTAIN	
Autopilot.....	HDG HOLD FOR	18
	VECTORS	19
Approach Procedure.....	REVIEW	
Nav Select.....	NAV FOR ILS	20
Avionics.....	SET	
ILS Frequency.....	SET on NAV 1	
ILS Course.....	SET CRS	
Nav 1 Radio.....	CHECK ID	

Approach Checklist		
Autothrottle.....	200 KIAS	15
Landing Lights.....	ON	69
Autospoilers.....	ARM	73
Anti-skid Brakes.....	ARM	70
Flaps.....	8 DEGREES	81
Autothrottle.....	175 KIAS	15
Flaps.....	20 DEGREES	81
Autothrottle.....	155 KIAS	15
Landing Gear.....	DOWN	71
Autopilot.....	APP HOLD when established on ILS	16
At Outer Marker:		
Flaps.....	30 DEGREES	81
Autothrottle.....	OFF	14
Autopilot.....	OFF	11
Runway in sight:		
Flaps.....	45 DEGREES	81
Speed.....	V _{ref}	31
Landing gear.....	DOWN	71

Parking Checklist		
Throttles.....	IDLE	74
Parking Brake.....	SET	70
Passenger Signs.....	OFF	68
Fuel Flow Switches.....	OFF	76
Gen 1 & Gen 2 Switches...	OFF	58
Master Ignition.....	OFF	64
Lights.....	AS REQUIRED	69
Door.....	OPEN	
Jetway (if available).....	EXTEND	
Avionics.....	OFF	
Battery Master.....	OFF	

Landing Roll Checklist		
Spoilers.....	CHECK EXTENDED	73
Throttles.....	REVERSE THUST	75
Throttles.....	IDLE < 60 KIAS	74
Brake.....	AS NECESSARY	
Autopilot.....	CHECK OFF	11

Taxi Checklist		
Flaps.....	UP	81
Spoilers.....	RETRACTED	73
Strobe Lights.....	OFF	69
Lights.....	AS REQUIRED	69
Anti-ice Switches.....	OFF	67
Transponder.....	STANDBY	
Flight Director.....	OFF	9



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