

BOMBARDIER CRJ700

Bombardier CRJ700 Aircraft Reference

V₁—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

V₂—Minimum Climb Speed

Standard temperature, sea level pressure altitude

50,000 lbs, (flaps 8) 154 KIAS

50,000 lbs, (flaps 20) 143 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

V_{MO}—Max Operating Speed 335 KIAS

M_{MO}—Max Operating Speed Mach .85 Mach

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

V_{LO}—Max Gear Operation Speed 220 KIAS/.41 Mach

V_{LE}—Max Gear Extension Speed 220 KIAS/.41 Mach

V_{FE}—Max Flap Speeds

1 degree 230 KIAS

8 degrees 230 KIAS

20 degrees 230 KIAS

30 degrees 185 KIAS

45 degrees 170 KIAS

Max Gross Weight 75,250 lbs

Bombardier CRJ700 Checklist

PRE-START

Parking Brake	SET
Throttle	IDLE
Landing Gear Lever	CHECK DOWN
Generator 1 and 2	OFF
Battery Master	ON
Panel Lights	ON IF REQUIRED
Avionics Master	ON
Hydraulic Pump Switch	CHECK ON
Fuel Quantity	CHECK
Request Fuel	AS REQUIRED
APU	START
APU/Generator	ON
Flight Controls	SELECT ON EICAS
Flaps	UP
Spoilers	RETRACTED
Flight Controls	FREE AND CORRECT
Engine Gauges on EICAS	SELECT
Anti-ice Switches	OFF
Passenger Signs	ON
ATIS	CHECK
Altimeter	SET
Clearance	OBTAIN
Lights	AS REQUIRED
Jetway	DETACH
Doors	CLOSE
Parking Brake	RELEASE
Pushback	AS REQUIRED

ENGINE START

Parking Brake	SET
Throttles	IDLE
Engine Area	CLEAR
Fuel Valves	SELECT ON EICAS
Fuel Flow Valve	OPEN
Fuel On (mixture rich)	ON
Engine Gauges	SELECT ON EICAS
Master Ignition	ON
Engine 1 Starter Switch	ON
N1 increases as N2 increases	CHECK
ITT	CHECK
Oil Pressure	CHECK
Engine 1 Starter Switch	OFF
Engine 2 Starter Switch	ON
N1 increases as N2 increases	CHECK
ITT	CHECK
Oil Pressure	CHECK
Engine 2 Starter Switch	OFF
Generator 1, Generator 2	ON
Master Ignition	OFF
APU Generator	OFF
APU	OFF

AFTER START

Lights	AS REQUIRED
Anti-ice Switches	ON BELOW FREEZING
Trim (check EICAS)	SET FOR TAKEOFF
50,000 lbs:	0 degree nose up
70,000 lbs:	0.5 degree nose up
Flight Director	ON
Heading Hold	ON
Heading Bug	SET FOR DEPARTURE
Altitude Hold	ON
Altitude Bug	SET FOR DEPARTURE
Nav Radios	SET FOR DEPARTURE
Taxi Clearance	OBTAIN
Transponder	SET AND STANDBY
Parking Brake	RELEASE

TAXI

Brakes	CHECK
Gyro	CHECK DURING TURNS
Turn Coordinator	CHECK DURING TURNS

BEFORE TAKEOFF

Flight Instruments	SET
Engine Instruments	CHECK
Takeoff Data, V1, VR, V2	REVIEW
Flaps	8 DEGREES
Spoilers	CHECK RETRACTED
Landing Light	ON
Strobes	ON
Anti-ice	ON BELOW 20 C
Transponder	ON
AP	CHECK OFF
Take Off Clearance	OBTAIN

TAKEOFF

Parking Brake	CHECK RELEASED
Brakes	HOLD
Throttles	50% N1 UNTIL STABLE
Throttles	FULL OR AS REQUIRED
V ₁	144 KIAS MAX
V _R	144 KIAS MAX
Pitch	+15 DEGREES
V ₂	154 KIAS
Positive Rate of Climb,	
Landing Gear	UP
Pitch	+10 DEGREES
Throttle	Approx 80% N1(SEA LEVEL)
Speed	170 KIAS
At 1000' AGL,	
Flaps	1 DEGREE
At 200 KIAS,	
Flaps	UP
Speed	250 KIAS BELOW 10,000'

CLIMB

Autopilot	ON
Autothrottle	<250 KIAS BELOW 10,000
Pitch	CHECK +10 DEGREES
Engine Instruments	CHECK
Pressurization	CHECK
Landing Light	OFF ABOVE 10,000'
Autothrottle	280 KIAS ABOVE 10,000'
Anti-ice	ON ABOVE 10,000'
Nav/GPS Select	NAV OR GPS
Autopilot	NAV1 HOLD

FLIGHT LEVEL 180 (FL180)

Altimeter	SET 29.92 (1013mb)
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CRUISE

Autothrottle	MACH HOLD
FL180	.67 Mach (330 KIAS)
FL240	.75 Mach (330 KIAS)
FL280	.78 Mach (320 KIAS)
FL330	.78 Mach (285 KIAS)
Lights	AS REQUIRED
Passenger Signs	OFF

DESCENT

Passenger Signs	ON
Autothrottle	
FL240	.75 Mach (330 KIAS)
FL180	.67 Mach (330 KIAS)
Altimeter	SET BELOW FL180
Anti-ice	ON BELOW 20 C
Landing Lights	ON BELOW 10,000'
Airspeed	<250 KIAS BELOW 10,000'
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 VECTORS
Approach Procedure	REVIEW
Nav Select	NAV FOR ILS APPROACH
Avionics	SET
ILS Frequency	SET ON NAV1
ILS Course	SET CRS
Nav 1 Radio	CHECK ID
Marker Beacon	ON ID

APPROACH

Autothrottle	SPEED HOLD
Autothrottle	200 KIAS
Landing Light	CHECK ON
Autospoilers	ARM
Anti-skid Brakes	SET
Flaps	8 DEGREES
Autothrottle	175 KIAS
Flaps	20 DEGREES
Autothrottle	155 KIAS
Landing Gear	DOWN
Autopilot	APP HOLD WHEN ESTABLISHED ON LOCALIZER AND GLIDE SLOPE
At Outer Marker	
Flaps	30 DEGREES
Autothrottle	145 KIAS
Autothrottle	OFF
Autopilot	OFF
Runway in Sight	
Flaps	45 DEGREES
Speed	V_{REF}
Gear	CHECK DOWN

LANDING ROLL

Throttles	IDLE
Spoilers	CHECK EXTENDED
Throttles	REVERSE THRUST
Throttles	IDLE BELOW 60 KIAS
Brake	AS NECESSARY
Autopilot	CHECK OFF

TAXI

Flaps	UP
Spoilers	RETRACTED
Strobe lights	OFF
Lights	AS REQUIRED
Anti-ice Switches	OFF
Transponder	STANDBY
Flight Director	OFF

PARKING

Throttle	IDLE
Parking Brake	SET
Passenger Signs	OFF
Fuel Flow	OFF
Generator 1, Generator 2	OFF
Master Ignition	OFF
Lights	AS REQUIRED
Door	OPEN
Jetway	EXTEND
Avionics	OFF
Lights	OFF
Battery Master	OFF