

MICROSOFT FLIGHT SIMULATOR 2002 CHECKLIST

BOEING 747-400

SPECIFICATIONS

Cruise Speed	0.85 Mach, 565 mph, 910 km/h
Engines	Pratt & Whitney PW4062 63,300 lb 28,710 kg Rolls Royce RB211-524H 59,500 lb 26,990 kg General Electric CF6-80C2B5F 62,100 lb 27,945 kg
Maximum Range	7,325 nm (13,570 km) Maximum Certified
Operating Altitude	45,100 ft, 13747 m
Fuel Capacity	57,285 gal, 216,840 L Basic Operating
Weight	403,486 lb, 182,020 kg
Length	231 ft, 10 in, 70.6 m
Wingspan	211 ft, 5 in, 64.4 m
Height	63 ft, 8 in, 19.4 m
Seating	Typical 3-class configuration – Up to 416 Typical 2-class configuration – Up to 524 Typical 1-class configuration – N/A

REFERENCE INFORMATION

FS Full Fuel Weight: 824,861 lbs	V2	(st. temp. sea level)
VMO 355 KIAS	flaps 10	188 KIAS (880,000 lbs)
MMO .88 MACH	flaps 20	181 KIAS (880,000 lbs)
VLE 270 KIAS / .82 MACH	V2	(st. temp. 5000')
VLO 270 KIAS / .82 MACH	flaps 10	188 KIAS (880,000 lbs)
VFE 280 KIAS (flaps 1)	flaps 20	181 KIAS (880,000 lbs)
260 KIAS (flaps 5)	VREF	
240 KIAS (flaps 10)	flaps 25	188 KIAS (850,000 lbs)
230 KIAS (flaps 20)	flaps 30	181 KIAS (850,000 lbs)
205 KIAS (flaps 25)	flaps 25	134 KIAS (450,000 lbs)
180 KIAS (flaps 30)	flaps 30	129 KIAS (450,000 lbs)
V1 (st. temp. sea level)		
flaps 10 160 KIAS (880,000 lbs)		
flaps 20 155 KIAS (880,000 lbs)		
V1 (st. temp. 5000')		
flaps 10 163 KIAS (880,000 lbs)		
flaps 20 158 KIAS (880,000 lbs)		
VR (st. temp. sea level)		
flaps 10 177 KIAS (880,000 lbs)		
flaps 20 171 KIAS (880,000 lbs)		
VR (st. temp. 5000')		
flaps 10 179 KIAS (880,000 lbs)		
flaps 20 173 KIAS (880,000 lbs)		

Max. Landing Gear Extended Speed:
320 KIAS / .82 MACH

LEGENDA

VMO - Max. Operating Speed (KIAS)
MMO - Max. Operating Speed (MACH)
VLE - Maximum Landing Gear Extension Speed
VLO - Maximum Gear Operating Speed
VFE - Maximum Flaps Extended Speed
V1 - Takeoff Commit Speed
VR - Rotation Speed (dry runway)
V2 - Minimum Climb Speed
VREF - Landing Approach Speed

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PUSHBACK (if parked at a gate)

- Request Pushback -- SET

BEFORE START

- Parking Brake -- SET

ENGINE START

- Engines 1,2,3,4 Control Switches – ON
- Throttles 1,2,3,4 – IDLE
- Engine 1 Start Switch – DOWN
- Engine 2 Start Switch – DOWN (when engine 1 has started)
- Engine 3 Start Switch – DOWN (when engine 2 has started)
- Engine 4 Start Switch – DOWN (when engine 3 has started)

AFTER START

- De-ice -- AS REQUIRED
- Flight Controls -- CHECK
- Autopilot -- SET AND OFF
- Instruments -- CHECKED
- Autobrake -- RTO (REJECTED TAKEOFF)
- Avionics Switch -- ON
- Avionics -- SET
- Trim -- SET
- Beacon Light Switch -- ON

BEFORE TAKEOFF

- Flaps -- SET FOR TAKEOFF
- Flight Director -- ON
- Autothrottle -- ARM

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TAKEOFF

- Brakes -- RELEASE
- Strobe Lights -- ON
- Transponder -- ALT
- Thrust Levers -- ADVANCE TO 1.05 EPR
- Thrust Levers -- ADVANCE SMOOTHLY TO 100% N1 --or-- TO/GA Mode --

Engage

- Thrust -- VERIFY CORRECT FOR TAKEOFF
- Airspeed 80 KIAS-- CALLOUT "80 KNOTS"
- Airspeed V1 -- CALLOUT "V1"
- Airspeed VR -- CALLOUT "ROTATE" -- ROTATE TO APPROX. 10 DEGREES

PITCH UP

- Airspeed V2 -- CALLOUT "V2"
- Landing Gear -- UP (WHEN POSITIVE CLIMB ESTABLISHED)
- Autopilot Heading Select switch -- ON IF DESIRED
- Airspeed -- MAINTAIN V2+15 KIAS
- Autopilot -- ENGAGE
- Flaps-- START RETRACT ON SCHEDULE AT 1,000' AGL

CLIMB

- Autothrottle -- OFF
- Landing Lights -- OFF ABOVE 10,000' MSL
- Altimeter -- SET TO 29.92 CROSSING 18,000' MSL

CRUISE

- Thrust Levers-- AS DESIRED
- Trim -- AS NECESSARY

DESCENT

- Airspeeds (VREF, VAPP) -- COMPUTED AND SET
- Autobrake -- AS DESIRED
- De-ice -- AS REQUIRED
- Autopilot -- AS DESIRED
- Thrust Levers -- AS DESIRED
- Altimeter -- SET TO LOCAL SETTING CROSSING 18,000' MSL
- Avionics -- SET
- Airspeed -- <250 KIAS BELOW 10,000' MSL
- Landing Lights -- ON BELOW 10,000' MSL
- Approach Procedure -- REVIEW

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APPROACH

- Airspeed -- AS DESIRED
- Thrust Levers -- AS DESIRED
- Flaps -- AS DESIRED
- Autopilot -- AS DESIRED

LANDING

- Airspeed -- AS DESIRED
- Thrust Levers -- AS DESIRED
- Landing Gear -- DOWN and CONFIRMED
- Flaps -- AS DESIRED
- Speedbrake -- ARMED
- Autopilot -- AS DESIRED
- Autothrottle -- ARM (if using TO/GA mode for go-around)

LANDING ROLL

- Thrust Levers - CLOSED
- Autothrottle -- CHECK OFF
- Speedbrake Lever -- CHECK FULL UP
- Thrust Levers-- REVERSE
- Thrust Levers -- IDLE AT 60 KIAS
- Autobrake -- OFF
- Brake -- AS NECESSARY
- Autopilot -- CHECK DISENGAGED

TAXI-IN

- Speedbrake Lever -- DOWN
- Lights -- AS DESIRED
- Flap Lever -- UP
- Transponder -- STBY

PARKING

- Parking Brake -- SET
- Fuel Control Switches -- CUTOFF
- De-ice -- OFF
- Lights -- AS REQUIRED
- Flight Director -- OFF

VREF

<i>flaps 25</i>	188 KIAS (850,000 lbs)
<i>flaps 30</i>	181 KIAS (850,000 lbs)
<i>flaps 25</i>	134 KIAS (450,000 lbs)
<i>flaps 30</i>	129 KIAS (450,000 lbs)