Before Start Checklist

Parking Brake – SET  
Throttle – IDLE  
Fuel Flow – CUTOFF  
BATT Master Switch - ON (Shift+M)  
Panel Lights - As Required  
Gear Lever - CHECK DOWN  
Flaps – UP  
Spoiler – RETRACTED  
Fuel Quantity – CHECK  
Engine Instruments – CHECK  
Anti-Ice / Aircraft Lighting – OFF  
Flight controls – CHECK  
Elevator Trim - TAKEOFF SETTING  
Avionics – ON  
Fasten Seat Belts – ON  
No Smoking Sign – ON  
Check Weather (Atis, Flight Services)  
Anti-Ice - TEST/CHERCK  
Request Clearance  
Transponder – STANDBY  
Beacon - ON

Start-Up Checklist

Thrust Levers – IDLE  
Engine Area – CLEAR  
MFD - EICAS2  
Engine Starting Sequence : 1 - 4 - 3 – 2  
Eng 1 Start Switch START (Hold)  
At N2 > 20% Fuel Flow Eng 1 – ON  
Fuel Flow – CHECK  
N1 increasing as N2 incr. – CHECK  
Repeat for Eng. 4 - 3 – 2  
Anti-Ice - AS REQUIRED  
MFD - EICAS 1

Before Taxi Checklist

Nav Lights – ON  
Taxi Lights – ON  
Heading Indicator – SET  
Altimeters – SET  
Standby Instruments – SET  
Radios and Avionics - SET FOR DEPARTURE  
Autopilot - SET (Don't Activate)  
Autothrottle / Speed - SET (Don't Activate)  
Flight Director – ON  
Yaw Damper - ON AS REQUIRED  
Autobrake - RTO
Boeing 747 Checklist

Taxi Checklist

- Elevator Trim - SET for takeoff
- Request Taxi Clearance

Parking Brake – RELEASED
Brakes/Gyro/Turn Coordinator - CHECK
Taxi to Assigned Runway (Speed Max 20 knots)

Before Take-off Checklist

- Brakes – SET
- Throttle – IDLE
- Flaps - 10 deg
- Spoilers – RETRACTED
- Flight Instruments – CHECKED
- Engine Instruments – CHECK
- Takeoff Data (V1, VR, V2) – CHECK
- Nav Equipment – CHECK
- Landing Lights – ON
- Taxi Lights – OFF
- Strobe Light – ON
- Anti-Ice - AS REQUIRED
- Transponder – ON
- Request Takeoff Clearance

Take-off Checklist

- Smoothly increase thrust to 40% N1 let spool up
- Takeoff Thrust FULL or TO/GA
- Brakes – RELEASE
- V1 = 165 KIAS (Decision)
- Vr = 175 KIAS (Rotate)
- V2 = 185 KIAS (Safety Speed)
- Positive Climb Rate - Touch Brakes
- Landing Gear – RETRACT
- At 200 KIAS - RETRACT Flaps to Position 1
- At 220 KIAS - RETRACT Flaps Retracted

Climb-out Checklist

- Throttle - AS REQUIRED
- Trim for - 250 KIAS
- Autothrottle - ARM and SET
- Autopilot - ON and SET
- Autobrake – OFF
- Below 10000 - Max Speed 250 KIAS
- ATC As Required
- Fasten Seat Belts – OFF
- Smoking Sign – OFF
- Landing Lights - OFF

Above 10000 - Speed 300 KIAS

**Cruise Checklist (Above FL180)**

At Transition Altitude (FL180) set Altimeter to 29,92" (1013mb)
Accelerate to Cruise Speed;
FL180 0.67 mach (330 KIAS)
FL240 0.76 mach (335 KIAS)
FL280 0.82 mach (335 KIAS)
FL330 0.85 mach (315 KIAS)
Engine & Instruments – CHECK
Fuel Quantity – CHECK
Radios - TUNED and SET
Lights - AS REQUIRED

**Descent Checklist**

Atis/Airport Information – CHECK
Altimeter – CHECK
Radios – SET
Anti-Ice - AS REQUIRED
Descent Speed;
FL240 0.75 mach
FL180 0.65 mach
FL120 300 KIAS
At Transition Altitude (FL180) - ALTIMETER RESET TO LOCAL
Below 10'000ft - 240 KIAS
Fuel Quantities and Balance – CHECK
Flaps / Landing Gear - CHECK UP
Check Weather (ATIS, Flight Services)

**Approach Checklist**

Localizer Level Flight
Fasten Seat Belts – ON
No Smoking Sign – ON
Avionics & Radios – SET
Speed: Establish - 220 KIAS
MFD EICAS – 1
Landing Lights – ON
Auto Spoilers – ARM
Autobrake – SET
Flaps - 5-10 degrees
Speed: Establish - 200 KIAS
Flaps - 20 degrees
Speed: Establish - 180 KIAS
Landing Gear – DOWN
Turning Toward Runway - Set Flaps 25 degrees or FULL
Final Glideslope Descent
Speed Establish - 170 KIAS
Park rakes - VERIFY OFF
Anti-Ice - AS REQUIRED

Landing Checklist

Landing Gear - CHECK DOWN
Autopilot - OFF
Autothrottle - OFF and SPD Deactivated
Landing Speed - 160 KIAS
After Touchdown - Apply Reverse Thrust
At 60 KIAS - Cancel Reverse Thrust
Spoilers - VERIFY EXTENDED
Brakes - AS REQUIRED
Autobrake - OFF

Taxi To Ramp

Strobe Lights – OFF
Flaps – UP
Spoilers – RETRACTED
Taxi Lights – ON
Landing Lights – OFF
Taxi to Assigned Gate/Parking (Speed Max 20 knots)
Transponder – 1200
Elevator Trim - TAKEOFF SETTING
Lights - AS DESIRED

Shutdown Checklist

Brake – SET
Throttle – IDLE
Passenger Signs – OFF
Anti-Ice – OFF
Taxi Lights – OFF
Nav Lights – OFF
Flight Director – OFF
Avionics – OFF
Fuel Flow – CUTOFF
Beacon – OFF
BATT Master Switch - OFF (Shift-M)