Pre-Start Checklist
Parking Brake SET
Throttle IDLE
BATT Master Switch ON (Shift-M)
Panel Light AS REQUIRED
Gear Lever CHECK DOWN
Flaps UP
Spoiler RETRACTED
FMC / FS COMMANDER Flight Plan GENERATE / LOAD / ACTIVATE
Fuel Quantity CALC / LOAD
Engine Instruments CHECK
Aircraft Lighting OFF
Flight controls CHECK
Check Weather (Atis, Flight Services)

Request Clearance
Transponder SET
Beacon ON

Startup Checklist
Thrust Levers IDLE
Engine Area CLEAR
Mode Selector IGN/START
Eng 1 starts immediately
at N2 = 20% Fuel Flow ON
Fuel Flow CHECK
N1 increasing as N2 incr. CHECK
Eng 2 starts after Eng 1 is running
at N2 = 20% Fuel Flow ON
Fuel Flow CHECK
N1 increasing as N2 incr. CHECK
Mode Selector returns to NORM position

Before Taxi Checklist
Strobe Light ON
Nav Lights ON
Taxi Lights ON
Heading Indicator/Altimeters SET
Standby Instruments SET
Avionics FMC/FS COMMANDER ? SET FOR DEPARTURE
Autopilot FMC/FS COMMANDER ? SET and OFF
FD ON
Yaw Damper ON AS REQUIRED
Autobrake RTO
Elevator Trim SET for takeoff

Request Taxi Clearance
**Take-off Checklist**
Smoothly increase thrust to 40% N1 let spool up
Takeoff Thrust FULL or TO/GA
Brakes RELEASE
V1 = 145 KIAS (decision)
Vr = 150 KIAS (rotate)
Pitch 10-15 deg. nose up
V2 = 160 KIAS (safety speed)
At Positive Climb Rate Touch Brakes
Landing Gear RETRACT
At 180 KIAS RETRACT Flaps to Pos 1
At 210 KIAS RETRACT flaps up

**Climb-out Checklist**
Trim for 250 KIAS
Autothrottle ARM
Autopilot ON
Autobrake OFF
Taxi Lights OFF
Landing Lights OFF
Below 10000’ max. speed 250 KIAS
*ATC AS REQUIRED*
Fasten Seat Belts OFF
No Smoking Sign OFF
Above 10000’ speed 280 KIAS

**Cruise Checklist (above FL 180)**
At Transition Altitude (FL180) set Altimeter to 29.92” (1013mb)
Accelerate to cruise speed FL180 0.70 M 345 KIAS
FL240 0.77 M 343 KIAS
FL280 0.82 M 335 KIAS
FL330 0.84 M 305 KIAS
Engine+Instruments CHECK
Fuel Quantity CHECK
Radios TUNED and SET
Autopilot CHECK and SET
Lights as required

**Descent Checklist**
Atis/Airport Information CHECK
Altimeter CHECK
Radios SET
Descent Speed to FL240 0.75 M
to FL180 0.68 M
At Transition Altitude (FL180) reset Altimeter to local
to FL120 300 KIAS
below 10'000ft 240 KIAS
Fuel Quantities and Balance CHECK
**Approach Checklist**

*Localizer Level Flight:*
- Fasten Seat Belts ON
- No Smoking Sign ON
- ND OFF
- LS ON
- Avionics + Radios SET
- Speed: Establish 210 KIAS
- Landing Lights ON
- Auto Spoilers ARM
- Autobrake SET
- Flaps Position 1
  - Speed: Establish 180 KIAS
  - Flaps Position 2
  - Speed: Establish 160 KIAS
- Landing Gear DOWN
- Turning toward runway: set flaps Position 3 / FULL

*Final Glideslope Descent:*
- Speed Establish 150 KIAS
- Park Brakes VERIFY OFF

---

**Landing Checklist**

- Landing Gear CHECK DOWN
- Autopilot OFF
- Autothrottle OFF
- Landing Speed 145 KIAS
- After touchdown Apply Reverse Thrust, at
  - 60 KIAS: Cancel Reverse Thrust
- Spoilers VERIFY EXTENDED
- Brakes AS REQUIRED

---

**Taxi To Ramp**

- Taxi Lights ON
- Flaps UP
- Spoilers RETRACTED
- Landing Lights OFF
- Speed Max. 20 KIAS
- Transponder OFF
- Elevator Trim TAKEOFF SETTING
- Lights AS DESIRED
**Shutdown Checklist**
Brake SET
Throttle IDLE
Passenger Signs OFF
Taxi Lights OFF
Strobe Light OFF
Nav Lights OFF
FD / LS OFF
Eng 1 Fuel Flow OFF
Eng 2 Fuel Flow OFF
Beacon OFF
Panel Light OFF
BATT Master Switch OFF

**Securing Aircraft**
Parking Brake Verify SET
Throttle Verify IDLE
All Switches Verify OFF