



Checklist + Flow-Procedure  
Boeing 737 NG  
-600/-700/-800/-900



*DO NOT USE FOR FLIGHT*

# *Boeing 737 NG*

## *Checklist / Flow-Procedure*

*including basic Flight-Planning-Charts*

*for PMDG 737NGX  
with Microsoft Flight Simulator X*

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*Version 6.0*

##### To start with a dark & cold cockpit, you need to set the aircraft to dark & cold in the FMC and activate dark and cold for every startup. #####

**Parking Position:**

- FSX start & create 737 flight
- Parkingbreak Check Set
- IVAP-Connection Activate
- Dep-Metar Check & note
- Arr-Metar Check & note
- Flightplan Create (e.g. in FSBuild)
- Door 1 Open (Shift + E / via FMC)
- Gangway Enable (if available) (Strg + J)
- Battery (OHP) On & Covered
- DC-Voltemeter-Selector (left) BAT
- DC-Voltemeter Check ≈ 28V
- AC-Voltemeter-Selector (right) STBY PWR
- Master Caution Disengage
- Hyd. Pumps All Off
- Fuel Pumps All Off
- Interior Lights:
  - Panel-Light (Pedestal) as required
  - Flood-Light (Pedestal) as required
  - Lights (Main Panel) as required
  - Background (Main Panel) as required
  - AFDS Flood (Main Panel) as required
  - Panel Light (Ovhd Panel) as required
  - Circuit Brk. (Ovhd Panel) as required
- Cabin / Utility Power Check On
- IFE Pass Seat Power Check on
- **### Connect Ground Power ###**
- **### If no Ground Power available bring forward APU-start ###**
- FMC (Main Menu):

- Clear any messages CLR
- FS Actions R5
- Ground Connections L3
- Wheel Chocks Check Set / L1
- Ground Power Connect / L2
- Air Start Unit Connect / L3
- Air Cond. Unit Connect / L4
- Pitot Covers Check Removed / L5
- Return L6
- Ground Power (GRD PWR) On
- AC-Voltemeter-Selector (right) GND PWR
- Emergency-Lights Armed & Covered
- External Lights
  - Position Steady
  - Wheel Well On
  - Logo On
  - Wing On
- Master Caution Disengage
- Seat-Belt Auto / On
- ### Continue here for next flight (cockpit not dark+cold) ###
- FMC (FS Action Menu):
  - Clear any messages CLR
  - Payload Menu L2
  - Set Payload (R6 for random)
  - Return L6
  - Fuel Menu L1
  - Set Fuel (as required per chart)
  - Enter Fuel in LBS Enter + L1
  - Return L6
  - Return to Main Menu L6
- Recirc. Fan Left Auto
- Recirc. Fan Right Auto

- Pack Left Auto
- Pack Right Auto
- Autopilots Check Off
- Speed Brake Check Down / Off
- Cockpit Voice Recorder Hold for 5sec  
### Wait for green light to appear ###
- Engine Fire Test Button Hold Left  
### Verify FAULT and APU DET INOP light illuminated ###
- Engine Fire Test Button Hold Right  
### Verify test lights illuminated and bell ringing ###
- IRS
  - DSPL SEL Test
  - DSPL SEL HDG/STS
  - IRS Selector Left ALIGN
  - IRS Selector Right ALIGN
- FMC
  - FMC Menu L1
  - Clear any messages CLR
  - Initiate (Pos Init Menu) INIT REF
  - Enter Airport Dep Code Enter + 2L (not required)
  - Enter Gate Enter + 3L (not required)
  - Go to Page 2 NEXT PAGE
  - Copy GPS L Position L4
  - Go to Page 1 PREV PAGE
  - Paste GPS Position R4
- IRS
  - IRS Selector Left NAV
  - IRS Selector Right NAV
- FMC
  - Route page R6
  - Enter Airport Dep Code L1
  - Enter Airport Arrival Code R1

- Enter Flight No. R2
- Go to Page 2 NEXT PAGE
- Enter first waypoint after SID R1
- Enter all airways Lx  
### Repeat until all airways entered ###
- Enter last waypoint before STAR Rx (x = line of last airway)
- Activate R6
- Execute EXEC  
### Enter alternative destination if desired via L6 ###
- Perf Init Page R6
- Auto-Enter ZFW 2x L3
- Enter Cost Index Enter + L5 (e.g. 80)
- Enter Cruise Flightlevel Enter + R1
- Enter Transition Alt Enter + R5
- Enter Average Cruise Wind Enter + R2 (not required)
- Enter Reserves Enter + L4
- Execute EXEC
- N1 Limit Page R6
- Set t/o power as desired
- Takeoff Page R6
- Fuel Pump Aft No.1 On  
### Check Low Pressure Light extinguished ###
- APU START
- EFIS-Mode MAP
- EFIS-Range 20 nm (or as required)  
### Wait until APU Gens available ###
- APU Gen Switch Left On
- APU Gen Switch Right On  
### Wait until APU GEN OFF BUS + SOURCE OFF lights extinguished ###
- APU Bleed Switch Check On
- Engine Bleed Switches Check On
- AC-Voltemeter-Selector (right) APU

- FMC
  - Main Menu Page MENU
  - FS Actions Menu R5
  - Ground Connections L3
  - Disconnect Ground Pwr L2
  - Disconnect Air Start Unit L3
  - Disconnect Air Cond. Unit L4
- Master Caution Disengage
- Com1-Frequenz Set (active ATC or 122.8 UniCom)
- IVAP-flightplan Copy route from FSBuild
- Departure Time Enter in UTC time (CET-2/CEWT-1)
- IVAP-flightplan Fill out and send
- IFR-Clearance
  - Clearance Request
  - First Altitude Note
  - Departure Route (SID) Note
  - Squawk Code Note
- Squawk Set
- Altimeter Set to current atm. pressure (B)
- First Altitude Set A/P-Alt.
- FMC
  - DEP/ARR Page DEP /ARR
  - Departure Page L1
  - Set dep. runway Rx
  - Set SID Lx
  - Set Transition Lx
  - Execute EXEC
  - Route Page RTE
  - ### Check no discontinuities, delete any of them ###
  - Takeoff Page R6
  - Enter t/o flaps Enter + L1
  - Auto-Enter V-Speeds R1, R2, R3

- Auto-Enter CG 2x L3 (note trim data)
- Go to Page 2 NEXT PAGE
- Enter t/o winds Enter + L1
- Select Runway condition R1
- Set Elevator trim Set to trim data from FMC
- Gangway Disable (ctrl + j)
- Door 1 Close (Shift + E / via FMC)
- Doors Check all closed
- Gen Bus Transfer Switch Check Auto + Covered
- Fuel Pumps All on (no cross-feed)
- Hydraulic Pumps All on
- Anticollision Lights On
- Pack Left Off
- Pack Right Off
- Thrust Idle (check)
- Fuel Control Switches Cutoff (check)

**Engine s/u & Pushback:**

- Engine s/u & p/b clearance Request
- FMC
  - Main Menu Page MENU
  - FS Actions Menu R5
  - Ground Connections L3
  - Wheel Chocks Off L1
- Pushback Start (via IVAP or FMC menu)
- Duct Pressure Gauge 30 PSI (verify)
- Ignition Selector Engine L (or R or Both)
- Left Engine Start Switch GRD  
### Wait till Engine 1 at N2 > 20% ###
- Left Engine Fuel Control Switch On  
### Wait till Left Engine Start Switch returned to off ###





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- Autopilot Set
  - AP Disengage bar Up (AP available)
  - FD (Flight Director) On
  - AT (Auto-Throttle) On
  - IAS 250 knots / first speed limit
  - HDG Rwy heading
  - ALT To assigned altitude (first alt)
- Spoiler Armed

**h/p:**

- Hand-off GND to TWR Change frequency
- l/u & t/o clrc state ready for dep (h/p xx)
- Landing-Lights On
- Runway Turnoff Lights On
- Taxi-Lights Off
- Position Lights Strobe + Steady
- IVAP-Transponder On
- Postion & hold Taxi & stop on rwy

**Ready to Takeoff:**

- Parkingbreak Set
- Thrust Levers Takeoff-Setting
- Parkingbreak Release
- Yoke (till 80 knots) Press forward
- VR Rotate
- V2 Lift-off

**Takeoff:**

- Trim settings Adjust (when needed)
- Gear Up (at positive climb rate >500ft)

### After climb over 1000 ft ASL ###

- Autopilot On
- VNAV On
- LNAV On
- Flaps Raise on schedule
- Start time Note (if needed)
- Hand-off TWR to DEP(APP) Change frequency

**Climb:**

- Autobreak Off
- Spoiler Disarm
- Landing Lights Off
- Runway Turnoff Lights Off
- Wheel Well Lights Off
- ### When cleared to next / final FL ###
- AP altitude Set
- ### Do the following things if required ###
- Hand-off DEP(APP) to CTR Change frequency
- Window Heat On (under 10°C TAT)
- Engine Anti-Ice On (under 10°C TAT)
- Wing Anti-Ice On (under 10°C TAT)
- Altimeter Readjust (above 18000ft)

**Cruise:**

- Radio /ATC contact Maintain
- Autopilot / FMC Check permanently
- FMC Progress Page Check fuel consumption
- ### When center fuel tank empty ###
- Center fuel pump Off

**Descent & Approach:**

- Descent preparations Begin 30nm before T/D
- Airport-/Metar-Information Retrieve

- Autobrakes Set
- Top of Descent (T/D)
  - Alt (AP) Set (before reaching T/D)
  - VNAV Will descent automatically at T/D
- FMC
  - DEP/ARR Menu DEP/ARR
  - Arrivals Page R2
  - STARS Select Lx
  - Transition Select Lx
  - Approach Select Rx
  - App Transition Select Rx
  - Route Page RTE

### Delete any discontinuities by copying and pasting the first waypoint after the discontinuity into the line of the discontinuity(Rx → Lx) ###

  - Init Ref Page INIT REF
  - Copy flap/speed setting R1 or R2 or R3
  - Paste flap/speed setting R4

### When ILS available ###

  - ILS frequency Set into NAV1and NAV2
  - ILS course Set into AP both CRS selectors
  - HGS Settings
    - Mode PRI
    - STBY Axxx ARM
    - RWY Set Airport Elevation (in ft) (EL)
    - RWY Set Runway Length (in ft) (RL)
    - GS Set Glideslope (Standard -3.00°)

### When too fast / too high / drag require ###

  - Speedbrakes Flight Detent

### Continue here ###

  - Altimeter Readjust (under 18000ft)
  - Hand-off CTR to APP Change frequency

- Landing Lights On
- Runway Turnoff Lights On
- Spoilers Arm

**Final approach & Landing (handflow):**

- Flaps Lower as indicated on PFD  
### (e.g. if 1 passes on PFD set to 5 etc.) ###
- Gear Down (latest at flap 20)
- ILS captured / Runway in sight Announce (on UC state final app)  
### Check flaps to ref-degree and gear down ###
- Hand-off APP to TWR Change frequency
- Autopilot (AP) Disengage (Disengage bar down)
- A/T (AP) Off
- AP Disengage Warning Off
- Trim settings Adjust (when needed)  
### After touchdown ###
- Throttles Idle
- Spoilers Engage (if not auto-engaged)
- Thrust reversers Engage (if needed)
- Thrust reversers Disengage under 80kt
- Runway Vacate (on UC: "rwy vacated")

**Final approach & Landing (Autoland):**

- Flaps Lower as indicated on PFD  
### (e.g. if 1 passes on PFD set to 5 etc.) ###
- Gear Down (latest at flap 20)
- Decision Height (Ovhd Panel) Set 100 (ft)
- AP Alt Set 0  
### 10 - 15nm before runway verify on glideslope, required to start autoland ###  
### When turning into ILS continue below ###
- LOC/LOC (AP) On (to follow ILS localizer)

### Verify white VOR/LOC illuminated on PFD ###

### Wait until localizer captured, verify green VOR/LOC illuminated ###

- APP (AP) On (to follow glideslope)  
 ### Verify white GS illuminated on PFD ###  
 ### Wait until ILS glideslope captured, verify green GS illuminated ###
- AP2 On  
 ### Verify both autopilots on ###  
 ### Verify LAND3, ROLLOUT and FLARE illuminated on PFD ###
- ILS captured Announce (on UC state final app)
- Hand-off APP to TWR Change frequency
- Landing clearance Request (UC: state "short final")  
 ### After touchdown ###
- Throttles Idle
- Spoilers Engage (if not auto-engaged)
- Thrust reversers Engage (if needed)
- Thrust reversers Disengage under 80kt
- Autopilot (AP) Disengage (bar down)
- A/T (AP) Off
- AP Disengage Warning Off
- Runway Vacate (UC: state „rwy vacated“)

**Taxi:**

- Transponder Stdby
- Hand-off TWR to GND Change frequency
- Taxiways Note and follow
- ( Ground-Guidance Request if required)
- FD (AP) Off
- Spoilers Off
- Flaps Set 0
- Autobreaks Off
- Taxi Lights On
- Landing Lights Off

- Runway Turnoff Lights Off
- Position Lights Steady
- Wheel Well Lights On
- Window Heat Off
- Engine Anti-Ice Off
- Wing Anti-Ice Off
- Landing time Note (if needed)
- APU START
- Autopilot (AP) Reset (bar up)

**Parking Position:**

### Before entering parking position ###

- Taxi Lights Off

### At parking position ###

- Parkingbreak Set

### Wait till APU Gen available ###

- APU Gen Switches On
- APU-Bleed On
- AC-Voltemeter-Selector APU
- ENG 1 Cut off
- ENG 2 Cut off
- Master Warning Disengage
- FMC
  - Main Menu MENU
  - FS Actions R5
  - Ground Connections L3
  - Set Wheel Chocks/Breaks L1
  - Ground Power L2
  - Air Start Unit L3
  - Air Condition Unit L4
  - Return L6
  - Door Menu L4

- |  |                   |
|--|-------------------|
| ○ Open Doors   | Lx / Rx           |
| • Gangway  | Enable (ctrl + j) |
| • Seat-Belts   | Off / Auto        |
| • Ground Power (GRD PWR)   | On                |
| • AC-Voltemeter-Selector (right)   | GND PWR           |
| • APU  | Off               |
| • APU Bleed  | Off               |
| • External Lights  |                   |
| ○ Position   | Steady            |
| ○ Wheel Well   | On                |
| ○ Logo   | On                |
| ○ Wing   | On                |
| ○ Anti-Collision   | Off               |
| • TCAS   | Stdby             |
| • Yaw Damper   | Off               |
| • Pitot Heat Switches (PROBE)  | Off               |
| • Engine Start Switches  | Both Off          |
| • Hyd Pumps  | All Off           |
| • Fuel Pumps   | All Off           |
| • Master Warning   | Disengage         |
| <b>### Stop here for next flight, continue to set cockpit to dark+cold ###</b> |                   |
| • External Lights  | All Off           |
| • Emergency Lights   | Uncovered + Off   |
| • IRS Selectors  | Both off          |
| • AC-Voltemeter-Selector (right)   | STBY PWR          |
| • Ground Power (GRD PWR)   | Off               |
| • IFE Pass Seat Power  | Off               |
| • Cabin / Utility Power  | Off               |
| • Interior Lights  | All Off           |
| • DC-Voltemeter-Selector (left)  | STBY PWR          |
| • Master Warning   | Disengage         |
| • Battery  | Uncovered + Off   |



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## Flight-Planning-Charts:

### Flights-Planing-Charts:

As all required charts are included within the FCOMv1 PDF-File I will not include them here again. Print the following pages from the PDF-file for the listed 737 models:

737-600:	285-288, 295-299, 305 (data in KG, 10 pages)
737-700:	325-327, 333-337, 343 (data in LB, 9 pages)
737-800:	359-362, 369-373, 379 (data in KG, 10 pages)
737-900:	405-408, 417-421, 427 (data in LB, 10 pages)
737-900ERW:	447-450, 457-461, 467 (data in KG, 10 pages)

### Further Notes:

➔ *Total fuel = Trip fuel + Reserves (45min Holding, 60min Diversion to alternate, Contingency including minimum landing fuel, 5% of trip-length-reserve and taxi-out fuel). Modify alternate value as required.*

➔ Load wing tanks first, with same amount of fuel; wing tanks full ➔ center tank.

### Fuel planning notes (737-600):

	Basic Operating Weight (OEW)	XX.XXX KGS
+	Payload (passengers & cargo)	XX.XXX KGS
=	Zero Fuel Weigh (ZFW) (max 51.709 KGS)	XX.XXX KGS
+	Holding	1.200 KGS
+	Diversion	1.750 KGS
+	Contingency Fuel	550 KGS
=	Planned Landing Weight (PLW) (max 54.657 KGS)	XX.XXX KGS
+	Flight Plan Fuel (fuel for route)	XX.XXX KGS
=	Planned Takeoff Weight (PTOW) (max 57.606 KGS)	XX.XXX KGS

➔ **Flight Plan Fuel + 3.500 KGS = Total Fuel**

**Fuel planning notes (737-700):**

	Basic Operating Weight (OEW)	XX.XXX LBS
+	Payload (passengers & cargo)	XX.XXX LBS
=	Zero Fuel Weigh (ZFW) (max 120.500 LBS)	XX.XXX LBS
+	Holding	2.800 LBS
+	Diversion	4.000 LBS
+	Contingency Fuel	1.000 LBS
=	Planned Landing Weight (PLW) (max 128.000 LBS)	XX.XXX LBS
+	Flight Plan Fuel (fuel for route)	XX.XXX LBS
=	Planned Takeoff Weight (PTOW) (max 133.000 LBS)	XX.XXX LBS

**→ Flight Plan Fuel + 7.800 LBS = Total Fuel****Fuel planning notes (737-800):**

	Basic Operating Weight (OEW)	XX.XXX KGS
+	Payload (passengers & cargo)	XX.XXX KGS
=	Zero Fuel Weigh (ZFW) (max 61.688 KGS)	XX.XXX KGS
+	Holding	1.400 KGS
+	Diversion	2.200 KGS
+	Contingency Fuel	600 KGS
=	Planned Landing Weight (PLW) (max 65.317 KGS)	XX.XXX KGS
+	Flight Plan Fuel (fuel for route)	XX.XXX KGS
=	Planned Takeoff Weight (PTOW) (max 70.533 KGS)	XX.XXX KGS

**→ Flight Plan Fuel + 4.200 KGS = Total Fuel**

**Fuel planning notes (737-900):**

	Basic Operating Weight (OEW)	XX.XXX LBS
+	Payload (passengers & cargo)	XX.XXX LBS
=	Zero Fuel Weigh (ZFW) (max 138.300 LBS)	XX.XXX LBS
+	Holding	3.400 LBS
+	Diversion	4.800 LBS
+	Contingency Fuel	1.300 LBS
=	Planned Landing Weight (PLW) (max 146.300 LBS)	XX.XXX LBS
+	Flight Plan Fuel (fuel for route)	XX.XXX LBS
=	Planned Takeoff Weight (PTOW) (max 174.700 LBS)	XX.XXX LBS

**→ Flight Plan Fuel + 9.500 LBS = Total Fuel****Fuel planning notes (737-900ERW):**

	Basic Operating Weight (OEW)	XX.XXX KGS
+	Payload (passengers & cargo)	XX.XXX KGS
=	Zero Fuel Weigh (ZFW) (max 62.731 KGS)	XX.XXX KGS
+	Holding	1.600 KGS
+	Diversion	2.400 KGS
+	Contingency Fuel	600 KGS
=	Planned Landing Weight (PLW) (max 66.360 KGS)	XX.XXX KGS
+	Flight Plan Fuel (fuel for route)	XX.XXX KGS
=	Planned Takeoff Weight (PTOW) (max 79.015 KGS)	XX.XXX KGS

**→ Flight Plan Fuel + 4.600 KGS = Total Fuel**



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