F-16
Block 50/52 (GE129)

Checklists - Main Volume

Not suited for Real Operations
Made for FALCON 4 and suitable only for
BMS 4.35 version

CONTENTS

Check-lists

> NOTE:
> Refer to Cockpit Interior check Rev 2006 for placing all switches before entering the aircraft

VERIFY CHECK

The following items are important switches that if not correctly positioned, could cause a safety hazard and/or improperly operated systems during engine start.
Please refer to cockpit / interior checklist for a full cockpit check.

1.	FUEL MASTER switch	ON – Guard down
2.	ENGINE FEED knob	NORM
3.	EPU switch	NORM – Guard down
4.	ENG CONT switch	PRI – Guard down
5.	THROTTLE	OFF
6.	LD GEAR handle	Confirm Down and locked
7.	HOOK switch	UP
8.	MASTER ARM switch	OFF
9.	AIR SOURCE knob	NORM

BEFORE ENGINE START

1. MAIN PWR switch	**BATT** :
	Verify FLCS RLY light ON
2. FLCS PWR TEST switch	TEST and hold
	Verify lights ON
	ACFT BATT TO FLCS
	FLCS PMG
	FLCS PWR (4)
	Verify FLCS RLY light OFF
3. FLCS PWR TEST switch	Release
4. MAIN PWR Switch	**MAIN** PWR:
	Verify lights ON
	ELEC SYS
	HYD/OIL PRESS
	FLCS RLY
	SEC
	ENGINE
5. EPU GEN & EPU PMG lights	Confirm OFF
6. Communications	All set to assigned UHF Backup
7. Canopy	Closed – locked (spider)- no light
8. Chocks	Confirm in place
9. COM1 & COM2 Vol knob	Set both CW (turns radio ON)
10. Backup UHF radio	Establish comms if required

Note:
To prevent possible depletion of battery power, do not allow MAIN PWR switch to remain in BATT or MAIN PWR for more than 5 minutes without engine running.

STARTING ENGINE (GE129)

1.	JFS	START 2
		check JFS light ON within 30 seconds
2.	THROTTLE	Advance to IDLE at 25% RPM minimum.
3.	Idle Detent	Toggle (Unless idle/cutoff code enabled in bmsconfig)
4.	SEC caution light	Check OFF around 20% RPM
5.	FTIT	Monitor:
		Rapid increase past 750°= HOTSTART
6.	ENGINE warning light	OFF at 60% RPM
7.	JFS Switch	Confirm OFF (snaps OFF at 55% RPM)
8.	HYD/OIL PRESS light	OFF between 15 and 70% RPM

> Note :
> Engine light-off occurs within 10 seconds after throttle advance and is indicated by an airframe vibration and an increase in RPM followed by an increase of FTIT.

ENGINE CHECK AT IDLE

1.	FUEL FLOW	700 – 1700 PPH
2.	OIL pressure	MIN 15 PSI
3.	NOZ POS	Greater than 94%
4.	RPM	62 – 80%
5.	FTIT	Below 650°C
6.	HYD PRESS A&B	2850 - 3250psi - around 12 O'clock position
7.	Throttle cutoff release	Check – Attempt to retard the throttle to OFF without depressing the cutoff release.
8.	Anti-Ice Switch	ON

AFTER ENGINE START

1. Gear lights   Confirm 3 greens
2. FLCS panel: FLCS reset (FLCS light & PFD off)
3. TEST switch panel check:
   - PROBE HEAT switch: PROBE HEAT: check caution light OFF
                          TEST: check caution light flashes
                          OFF
   - Fire and Overheat Detect Button: TEST & HOLD
                         - Check ENG FIRE Warning light ON
                         - Check OVER HEAT caution light
                         - Check MASTER CAUTION light ON
   - MAL&IND LTS button: DEPRESS and HOLD
  Proper VMS operation is verified by the presence of each word in priority sequence.

AFTER ENGINE START (Continued)

4. EPU CHECK
   a. Request EPU PIN removal from the Ground ATC menu
   b. EPU GEN and EPU PMG lights: Confirm OFF
   c. O²: 100%
   d. Toe brakes: Engage
   e. EPU switch: OFF
   f. EPU switch: NORM
   g. THROTTLE: 80%
   h. EPU/GEN TEST switch: EPU/GEN and hold.
                  Check lights: EPU AIR light ON
                                 EPU GEN and EPU PMG light OFF
                                 FLCS PWR lights ON
                                 EPU RUN light ON within 5 seconds
   i. EPU/GEN TEST switch: Release (OFF)
   j. THROTTLE   IDLE
   k. O²: NORMAL
   If no run light within 10 sec, reinitiate test with throttle at IDLE +15%

5. AVIONICS POWER Panel
   a. MMC (FCC) switch: ON
   b. ST STA (SMS) switch: ON
   c. MFD switch: ON
   d. UFC switch: ON
   e. DL switch: ON
   f. EGI: Select ALIGN NORM after display visible
                                 on the DED
6. SNSR PWR panel:
   a. LEFT HDPT switch: As required
   b. RIGHT HDPT switch: As required
   c. FCR switch: FCR (initiates FCR PO BIT)
   d. RDR ALT switch   STBY

7. SEAT   Adjust

8. HUD Panel: As desired
                       Set HUD SYM WHEEL ON

9. IFF PANEL   CNI (C&I) knob: UFC
                       IFF MASTER: STBY

10. DTC: Load (always load the DTC prior to setting up
                       the UFC subpages)

AFTER ENGINE START (Continued)

11. UFC radio: **Set COM1 & COM2 frequency as briefed.**
                         ATIS: Listen to departure airbase VHF ATIS freq

12. MFL: **Clear (MFD TEST page)**

13. FLIGHT CONTROLS: CYCLE & CHECK

14. FLCS BIT: **Initiate and monitor.**
     Position BIT switch to BIT. The RUN light on FLCP illuminates.
     At successful completion of BIT (approximately 45seconds) the RUN
     light goes OFF, the BIT switch returns to OFF and the FAIL light and
     FLCS warning light remain OFF. Caution & WARNING lights might
     be displayed during BIT test. A BIT pass message appears on
     the FLCS MFD page

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| Note: |
| If the FLCS BIT reports a failure through the FLCS warning light and |
| the FAIL light on the FLCP, the failure cannot be reset. The BIT must |
| be reinitiated. In this case, the RUN light and the FAIL light are |
| simultaneously illuminated for the first steps of the BIT, after which the |
| FAIL light goes OFF unless BIT detects a subsequent failure. |
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15. DBU CHECK (AFTER FLCS BIT completed)
     a. DIGITAL BACKUP switch: BACKUP
     b. DBU ON warning light: Verify ON & WARN displayed in HUD
     c. Operate controls: All surfaces respond normally
     d. DIGITAL BACKUP switch: OFF
     e. DBU ON warning light: Verify OFF

16. TRIM CHECKS
     a. TRIM AP DISC switch: DISC
     b. Stick TRIM buttons: Activate in ROLL and PITCH
                                   No control surface, no indicator motion
     c. TRIM AP DISC switch: NORM
     d: Stick TRIM buttons: Check and centre
                                   Control surface & indicator motion
     e. Rudder trim check: YAW TRIM knob:
                                   Check and centre

17. AIR REFUEL CHECKS
     a. AIR REFUEL switch: OPEN
                          CHECK RDY light ON, DSC light OFF
     b. A/R DISC button: Depress
                          DSC light ON; RDY Light OFF
                          then 3sec later, RDY light ON, DSC light OFF
     c. AIR REFUEL switch: CLOSE

AFTER ENGINE START (Continued)

18. SEC check :
   May be delayed until BEFORE TAKEOFF
   - a. THROTTLE: IDLE
   - b. TOE BRAKE: ENGAGE, no PARKING BRAKES
   - c. ENG CONT switch: SEC
   - d. SEC Caution Light: ON - Nozzle: Less than 5%
   - e. RPM: Stabilized
   - f. THROTTLE: Snap to MIL
                          then snap to IDLE when RPM reaches 85%.
                          Check for normal indication and smooth
   operation.
   - g. NOZ POS: 10% or less within 30 sec after selecting SEC.
   - h. ENG CONT switch: PRI
   - i. SEC Caution Light: OFF
   - j. NOZ POS: Greater than 94%

19. AVIONICS (Program as required and verify (manual or DTC))
   - a. Threat Warning Aux: ON
   - b. CMDS
       RWR switch: ON
       JMR switch: ON
       CHAFF cmds switch: ON
       FLARE cmds switch: ON
       MODE knob: Set as required
       PGRM knob: Set as required
   - c. ECM switch: Set as required (OPR)
   - d. Threat Warning prime
       Handoff   Diamond Float mode (short press)
       MSL Launch   Press to test
       SYS TEST   Press to test
   - e. MFD
       S-Jettison: Preset Jettison and exit S-J mode
       Master Mode: Preset SMS as required for each MM
   - f. AUDIO
       COM1&2 Volume   SET & check
       MSL /Threat Volume   SET & check
       ILS Volume knob   SET & check
       Intercom volume   SET & check (all headset sounds)
   - g. DED – UFC
       ALOW – MSL – BINGO: Check
       CRUS – TACAN - IDM: M-Sel TOS and Check
       Bullseye: SET & Mode Selected.

AFTER ENGINE START (Continued)

20. FUEL QTY SEL knob Check

The following Values are based on JP-4 or JP5/8

a. Totalizer qty:	Check according to flight planning.
b. TEST:	FWD/AFT fuel low lights ON
	Tot: 6000 lbs
	A/L – F/R: 2000 lbs
c. NORM:	A/L : 2675/2810 lbs
	F/R: 3100/3250 lbs
d. RSVR:	both 460/480 lbs
e. INT WING:	both 525/550 lbs
f. EXT WING:	both 2300/2420 lbs (if 370-gallon carried)
	both 3750/3925 lbs (if 600-gallon carried)
g. EXT CTR:	F/R: 1800/1890 lbs
	A/L: 0 lbs
h. FUEL QTY SEL:	NORM

21. EPU FUEL QTY: 95 – 102%

22. ANTI-ICE CHECK
   a. Engine stabilized in IDLE for 1 minute with ANTI-ICE ON
   b: ANTI-ICE switch: OFF: FTIT decreasing at least 10°C within 15 sec
   c: ANTI-ICE switch: AUTO or ON as required

23. OBOGS CHECK (At least 2 minutes after engine start)

a. OBOGS BIT switch:	BIT
b. VERIFY LIGHT:	OXY LOW (right brow) ON for 10sec then OFF
c. Pressure:	CHECK 25-40 PSI
d. Mode Lever:	PBG/ON (as required)
e. Diluter lever:	NORM
f. EMERGENCY lever	NORM
g. FLOW indicator	Check

24. MPO CHECK (may be delayed until EOR and done with wingman)

a. Push stick forward	Check stabilizers positions
b: Depress and hold MPO	Check stab further angle
c: Release MPO switch	Check stabilizers in original position.

25. SPD BRK switch: Cycle
   (may be delayed until EOR and done with wingman)

BEFORE TAXI

1. Taxi Lights   ON
2. Drift Co Switch   Set Norm
3. INS/EGI Check   Check ALIGN flashes in HUD
4. INS/EGI switch   NAV position
5. Aircraft Lights   As SOP (AC ON – Wing/fus: ON – FLASH)
6. QNH   Confirm QNH received from lead or ATC
7. Radio   Remove chocks
                                  Get clearance to taxi from ATC Ground

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Note 1: Beware of spending excessive time checking the aircraft. Always refer to your next TOS.

Note 2: Be sure the AUX flag disappears from the ADI before scrambling. EGI will be accurate 90 seconds after initial alignment (AUX flag OFF)

Note 3: Excessive use of wheel brakes and/or differential braking is to be avoided. Maximum safe taxi speed on ramps is 20Kts. (15kts in turns)
Max 80% RPM

TAXI

1. NoseWheel Steering   Check ON
2. Seat   Armed – Caution light OFF
3. Wheelbrakes   Test
4. IDM   Check in sequence

Caution:
Pods (TGP) should be stowed for Taxi & Take-off

IF CHECKS

1. Pressure Instruments
        - AIRSPEED: Zero
        - ALTIMETER: Set QNH
        - VVI: Zero.
2. Gyroscopic Instruments
        - TURNS: Needle/balls – HSI Following
3. Navigation Instruments
        - NAV: Check correct bearings for WAYPOINTS
        - TACAN: Set TCN channel and Course for Departure
4. Miscellaneous:
        - HUD Compass tape – Track heading change
        - HSD Compass tape – Track heading change
        - HSI Compass tape – Track heading change
        - STDBY Compass - Track heading change
        - Clock and Chrono : Check and Reset
        - Engine instruments: Check

BEFORE TAKE OFF

1. PROBE HEAT switch   PROBE HEAT
2. ALT FLAPS switch   NORM
3. MANUAL TF FLY UP switch   ENABLE
4. Trims   Check PITCH and YAW centred,
                              ROLL as required
5. IFF   Check (DED) & NORM (IFF panel)
6. ENG CONT switch   PRI
7. Speedbrake   Check closed
8. Stores Config Switch   Cat1/Cat3 as required
9. GND JET ENABLE switch   As required
10. TFR / FLIR   As required
11. External Tanks   Check feeding then NORM
12. Flight Controls   Cycle
13. OIL pressure   Check PSI (min 15)
14. All warning & caution lights   Check OFF
15. Take off speed   Commit to memory

LINE UP

1. UHF Tower   clearance received
2. LANDING LIGHT   ON
3. Radar Altimeter   Set ON
4. VISOR   Down
5. HSI   Check on Runway heading

NORMAL TAKE OFF

2. Toe brakes   HOLD
3. RPM 85-90%   Check gauges & lights
                              Oil pressure increase – nozzle closing
                              Engine instruments in the green
                              NO CAUTION / NO WARNING
4. Brakes   Release
5. Throttle   Full MIL, AB as required
6. NWS   Disengage at 70 kts
7. Rotation   As computed
8. Positive Climb   (VSI + Alt) Gear Up

- Apply power smoothly, note computed speeds for 8-12 degrees pitch rotation as briefed.
- Do not exceed 14 degrees pitch in rotation.
- Insure LG is up and locked before exceeding 300 knots.
- Since TEF and LG retract at the same time, do not rush LG retraction after takeoff, a significant loss of lift may occur.

AIRBORNE / CLIMB

1. U/C   Check Retracted - handle light Off
2. Engine   Gauges in the Green
3. CABIN PRESSURE   Following
4. FUEL   Verify Tank feeding and check NORM
5. Radio   Call airborne (UHF departure)
                           or visual (VHF wingman)
6. DED   next steerpoint
7. DRIFT CO Switch   Set Drift
8. Wingman   Set Formation and Route
9. Altimeter   QNE (29.92 – 1013) at transition altitude

AERIAL REFUELLING

Tanker rejoin :
1. Radio   Set AAR & Request Refuelling.
2. TCN   Select TCN Channel
3. TCN Mode   SET A/A TR
4. Heading   Course to Intercept (HSI)
5. Altitude   Tanker ALT – 1000 Ft
Before Precontact:
6. Master ARM   Check Safe
7. Sensors (FCR)   Check Nose Cold (STBY)
8. EW Mode knob & ECM   STBY and OFF
9. RDR ALT   STBY
10. EXT Lights   DIM (night) – STEADY
11. ANTI COLLISION light   OFF at Night
12. AIR REFUEL switch   Open
13. AR status indicator   Check RDY Light On
Contact:
14. Position   Follow Director Lights
15. AR status indicator   Check AR/NWS Light On
16. Fuel Transfer   Monitor (List - #2)
Disconnect:
17. A/R DISC button   Depress
18. Throttle   Decrease power
Post Air refuelling:
19. Radio   Call DONE refuelling
20. Air Refuel switch   CLOSE
21. Master Arm / SMS   As required
22. Tacan   As required
23. EW Mode knob &ECM   As required
24. FCR   As required
25. RDR ALT   As required
26. EXT Lights   As required

> Note: Tanker overtake speed (use angular approach to control closure)
> Over 1Nm : 100 Kts overtake
> 6000 Ft : 60Kts
> 5000 Ft : 50Kts
> Decrease overtake speed by 10 Kts for every 1000 Ft closure.
> When within 1000 Ft to Tanker: Do not exceed 10Kts overtake.

FENCE IN (AG)

1. Master Mode   AG
2. Master ARM   Set ARM
3. LASER Switch   ON if required
4. Sensors (FCR/TGP/FLIR)   As Required
5. Chaff/ Flares PGM mode   As Required
6. ECM Jammer   As Required
7. RWR/EWS   Set
8. RWR Mode   Diamond Float mode or as required
9. PFLD   Check no Faults
10. Master A/C Lights   Check Off
11. IFF   Check Norm and set Mode as required
12. IDM   Initiate CONT if required
13. A/G Weapons   Check release parameters
14. SPI   Cancel slew : CZ (Cursor Zero)
15. Volumes   Check threat, com, msl vol
16. Missile power   Check ON if required – double check
17. AIM-9 Cooling head   Check Cool
18. CAT config   Check correct
19. Master mode   MRM once all AG system set

INITIAL POINT (AG)

1. Master Mode   AG
2. Master Arm   Double check ARM
3. Sensors   SET
4. MFDs   SET
5. Weapons   SET
6. Target   Capture
7. Egress plan   Review
8. Action point   Initiate attack
9. Countermeasures   Initiate program as required
10. AVTR   As required

EGRESS

1. Heading   Check to friendly airspace
2. Caution Panel   Check for damage
3. Master Mode   MRM
4. Awacs   Check Nearest threat
5. MFD   Cycle As Required
6. Store config   Set Cat I (if possible)
7. ECM Jammer   As Required
8. EWMS mode+pgr   At pilot discretion
9. Flight   Rejoin / Cover
10. DED A-LOW   Set for Egress
11. Flight   Check Status & Fuel - Rejoin

Note:
When engaging an A/A threat, Jettison remaining A/G stores, and select
Cat 1 config. If threat is less than 10 Nm, Use Dogfight Mode

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FENCE OUT

1. Threat   Assume A/A Threat - AWACS
2. Master ARM   According to remaining threat
3. Laser switch   OFF
4. Master Mode   NAV
5. ECM Jammer   OFF (According to Threat)
6. RWR/EWS Mode   As required
7. PFLD   Check no Faults
8. Master A/C lights   ON
9. IDM   As required
10. IFF   Check NORM and set Mode as desired

IF CHECKS MNEMONIC

Holding/enroute		**Approach setup**	
W	Weather	**M**	Minimas
H	Holding	**A**	Altimeter
O	Obtain app clearance	**I**	Initial descent rate
L	Letdown plate review	**L**	Letdown plate
D	Descent checks	**M**	Missed Approach
S	Speeds	**A**	Approach speeds
		N	Navaids

DESCENT

1. Master Mode   Set NAV
2. Master ARM   Set Safe
3. Heaters   Probe heat ON & ANTI-ICE NORM or ON
4. Descent   Start descending at TOD computation
5. Altimeter   Set & Check (transition)
6. Approach   Review
7. Instr Mode Select switch As required
8. TACAN channel   Set according to approach plate
9. HSI course and bearings Set according to approach plate
10. GPS   Input coordinates of IAF if required
                           Set VHF radio to Landing airbase freq.

Note:
Listen first to ATIS on VHF,
Contact ATC approach once within 30Nm of landing airbase.

Request OVERHEAD if VFR or
Request VECTORS for VISUAL APPROACH if VFR
Request UNRESTRICTED APPROACH or
Request VECTORS for INSTRUMENT APPROACH if IFR

ATC must be contacted prior to landing or the airport lights will not be
turned ON.

APPROACH

1. ATC   Initiate Contact with Approach within
                           30 Nm
2. Fuel   Check Quantity/Transfer/Balance
3. At IAF   Follow ATC instructions

Caution:
Pods (TGP) should be stowed for Landing & Taxi

BEFORE LANDING

1. DED   Display wind
2. Gear   Check 3 greens - handle light off
3. LANDING Light   Check ON
5. Speed brake   As required
6. Drift Co switch   Set Norm
7. Traffic   Announce traffic in sight if required

FINAL APPROACH

1. Speed brake   Extended
2. Gear   Down 3 greens
3. Speed   On speed AOA (green 11° AOA)
4. Touchdown   11 to 13° AOA
5. Landing clearance   Received

Note:
Final approach speed/13° AOA Cross Check:
136 kts + 4 kts per 1000 Pound of FUEL/STORE weight

LANDING

1. Speed   Throttle Idle
2. AOA   Maintain Max 13° for aerobraking
3. Speed 90-100 kts   Let the nose wheel drop on the ground
                      Maintain gentle AFT stick
4. Wheel brakes   As required
5. NWS   Engage at control speed (70Kts max)

Note:
Smoothly apply moderate to heavy braking to decelerate to taxi speed.
Using less than moderate braking increases the likelihood of a hot
brake(s)

AFTER LANDING (VACATING RWY)

1. Speedbrake   CLOSE
2. PROBEHEAT switch   OFF
3. IFF   HOLD & STBY
4. ILS   OFF
5. TAXI Lights   ON
6. Radar Alt   OFF
7. Radio   Clearance to taxi back received from
                       GROUND UHF

PRIOR TO ENGINE SHUT DOWN

1. Radio (ATC menu)   Request chocks in place
2. Ejection Seat   Safe
3. RWR PWR   OFF
4. JMR & ECM PWR   OFF
5. Chaff & Flares CMDs   OFF
6. HUD   ICP SYM knob OFF
7. L/R Hardpoints   Power OFF
8. FCR   Power OFF
9. MMC (FCC)   Power OFF
10. ST STA (SMS)   Power OFF
11. MFD   Power OFF
12. UFC/DED   Power OFF
13. D/Link   Power OFF
14. EGI   OFF
15. EPU   OFF
16. IFF   OFF
16. C&I switch   BACKUP

ENGINE SHUT DOWN

1. AIR Source   Set OFF
2. Radios & Volume knobs   All OFF
3. Throttle   - Stabilize at 75-78% RPM for 5-10 sec
                            - Idle to allow nozzle to open (1 to 2 sec)
4. Throttle (Idle Detent) Cut OFF position
5. JFS RUN light   Check

After Main GEN drops offline:

6. EPU Light check   EPU GEN / EPU PMG lights OFF
7. Engine FEED switch   Set OFF
8. Master LIGHT switch   OFF
9. Spider   Open
10. Canopy   Motor up
11. Main Power   OFF -2 clicks when RPM < 20%
12. Oxygen regulator   OFF & 100%

HOTPIT REFUEL

Prior to HOTPIT Entry
1. AFTER LANDING CHECKS   Complete
2. Radio Frequency   Check proper ATC frequency tuned
3. AIR REFUEL switch   Open ; RDY light ON
4. TACAN power knob   Power OFF
5. GND JETT ENABLE switch   OFF

Prior to Hot Refuelling
1. EPU safety PIN   REQUEST IN (ATC menu)
2. Canopy   As desired
3. Radio   request Hot PIT Refuelling

During Hot Refuelling
2. Radio freq   Monitor ATC freq & guard
3. Flight controls   Do not touch

Hot Refuelling complete
1. AIR REFUEL switch   CLOSE
2. EPU GEN & EPU PMG lights   Confirm OFF
3. EPU safety PIN   REQUEST OUT (ATC menu)
4. Taxi   Taxi clear of the hotpit area and contact ground

Note:
Hotpit refuelling requires ground crew to establish intercom communication, inspect tires and install the EPU safety pin.

SUPPLEMENTAL PROCEDURE : ILS

1. ILS Power & Volume   Check ON and as desired (Audio 2 panel)
2. DED   Select T-ILS page
3. ILS frequency   Enter ILS frequency and ENTR
4. CRS setting   Enter approach course
5. Cmd STRG   Check Mode selected
6. HSI   Set Inbound localizer course
6. INSTR Mode knob   ILS/TCN or ILS/NAV