F-16

Block 50-52 / MLU

Checklists - Main Volume

Not suited for Real Operations
Made for FALCON 4 – All versions

*Some switches and behaviours might not work depending on your version.

CONTENTS

- Refer to EP volume 0612 for Emergency prodedure
- Refer to In Flight Quick References volume 0612 for charts and datacards.

VERIFY CHECK

1. Master FUEL Switch	ON – Guard down	PNL#3
2. Engine FEED Knob	Set NORM	PNL#3
3. Master LIGHT switch	NORM	PNL#2
4. Exterior Lights	Anti Collision ON only	PNL#2
5. CNI switch	Backup	PNL#3
6. EPU switch	NORM	PNL#4
7. ENG CONT switch	PRI	PNL#4
8. ECM switch	OFF	(B52)
9. Audio/comms	As required (Com volume)	PNL#15
10. Throttle	OFF	
11. Hook Switch	Check UP	PNL#1
12. LDG Gear Handle	Down and locked	PNL#1
13. EW (CMDS or EWMS)	All OFF	PNL#13
14. Master Arm	SAFE	PNL#1
15. Fuel QTY SEL knob	Set NORM	PNL#5
16. Sensor PWR PNL	All OFF	PNL#10
17. AIR Source	NORM	PNL#6
18. Avionics	All OFF	PNL#9&10

BEFORE ENGINE START

1. MAIN PWR Switch	**BATT** : Verify lights Block 50: Flcs relay ON MLU: Flcs PWR: 4 lights ON	PNL#4
FLCS PWR Test switch	test and hold – verify lights FLCS BATT: 4 lights ON FLCS PWR: 4 lights ON FLCS PMG: light OFF A/C BATT to FLCS: light OFF	
2. MAIN PWR Switch	**MAIN** : Verify lights Flcs relay/ Flcs Pwr 4 lights: OFF to Flcs: ON Warning panel: ELEC SYS ON SEC ON Right eyebrow: HYD/OIL ON EPU GEN and EPU PMG light: OFF	PNL#4
3. Canopy	Closed, and light OFF	SHF CTL C
4. Parking brake	Set	PNL#1

Note:
Since wheels chocks are not implemented in F4, set the parking brakes ON prior to start engine.

ENGINE START (PW220 & PW229 & GE129)

1. JFS	START 2 - check JFS light ON	PNL#7
	Check SEC light OFF around 18% RPM	
2. RPM	Check increasing to 25% max	
3. Throttle	Advance to IDLE when RPM 20% MIN.	
4. Idle Detent	Toggle	PNL#20
	Advance Throttle over 45%	
5. RPM	Check increasing above 25%	
6. Throttle	Idle	
7. 45% RPM	MAIN GEN Online (check light)	
8. 50% RPM	JFS Switch - Check Off	
9. 55% RPM	ENG Warning light off	
10. HYD/OIL light	OFF between 25 and 70% RPM	

ENGINE CHECK (PW220 & PW229 & GE129)

1. Fuel Flow	500 – 1500 PPH
2. Oil pressure	MIN 15 PSI
3. Nozzle position	70-95%
4. RPM	60 – 70 %
5. FTIT	Below 650° at idle (F4 specific)
6. Hyd Sys A&B	2850 - 3250psi - around 12 O'clock position

AFTER ENGINE START

1. **AVIONIC Panel** (F4 specific due to ramp start time)

DL:	ON	PNL#9
GPS:	ON	PNL#9
UFC:	ON	PNL#9
MFD:	ON	PNL#9
ST STA:	ON	PNL#9
MMC:	ON	PNL#9
INS:	Select ALIGN NORM	PNL#9
	Input/Check Coord in DED if req.	

2. **TEST switch panel** PNL#22
   - Probe Heat switch: PROBE HEAT: check no light
     TEST: Light flashes 3/5 times
     OFF (all types)
   - Fire and Overheat Detect Button: DEPRESS and HOLD
     - Fire Warning light
     - Overheat caution light + Master caution
   - O^2 QTY Test switch : TEST and HOLD: Light ON at 0.5l
   - Mal Indication light button: DEPRESS and HOLD
     Check all lights and VMS

AFTER ENGINE START (Continued)

3. **SEC check :**
   Check will be performed after the engine has run at idle at least 30 seconds. May be delayed until the BEFORE TAKEOFF
   THROTTLE: IDLE
   NWS: ON
   BRAKES HOLD BRAKES (No parking brakes)
   ENG CONT switch: SEC PNL#7
   Nozzle: Less than 5% - SEC Caution lignt ON
   THROTTLE: Verify engine response to throttle movement then IDLE
   ENG CONT switch: PRI PNL#7
   Nozzle: 70-95% - SEC Caution light OFF
4. **EPU Checks**
   O^2 : 100% PNL#25
   NWS: ON
   BRAKES HOLD BRAKES (No parking brakes)
   THROTTLE: IDLE + 5%
   EPU/GEN TEST switch: EPU/GEN and HOLD PNL#22
   Check lights: EPU AIR light ON
   EPU GEN and EPU PMG lights OFF
   FLCS PWR lights ON
   EPU RUN light ON within 5 seconds
   EPU/GEN TEST switch: Release (OFF) PNL#22
   THROTTLE: IDLE
   O^2: Normal PNL#25
   If no run light within 10 sec, reinitiate test with throttle at IDLE +10%
5. **SNSR panel:** PNL#10
   LEFT HDPT: As required (chin hardpoint)
   RIGHT HDPT: As required (chin hardpoint)
   FCR switch: FCR PNL#10
   RDR ALT switch STBY PNL#10
6. **HUD:** ICP SYM knob adjust PNL#11
7. **Flight Controls:** Check Free and correct
8. **Speedbrake:** Cycle and CLOSE
9. **Landing Gear:** Check 3 green
10. **AR System check** PNL#3
    AIR REFUEL switch: OPEN - RDY light ON DISC light OFF
    A/R DISC Button: Depress – DISC light ON, RDY light OFF
    3 sec later RDY light ON, DISC light OFF
    AIR REFUEL switch: CLOSE – RDY light OFF
11. **Parking brakes:** SET

FUEL QTY CHECK (JP 8)

1. Totalizer qty	Check according to flight planning.	
2. NORM	A/L : 2940 lbs F/R: 3250 lbs	
3. TEST	FWD/AFT fuel low lights ON Tot: 6000 lbs A/L – F/R: 2000 lbs	PNL#17
4. RSVR	both 480 lbs	
5. INT WING	both 550 lbs	
6. EXT WING	both 2420 lbs (if carried)	
7. EXT CTL	F/R: 1890 lbs A/L: 0 lbs	
8. EPU fuel	Check 95 – 102 %	
9. QTY SEL switch	EXT TANK check feeding then NORM	

AVIONICS

1.	**Threat Warning Aux**	ON	PNL#13
2.	**EWMS**		
	RWR PWR	ON	PNL#13
	JMR PWR	ON	PNL#13
	Chaff CMDs	ON	PNL#13
	Flares CMDs	ON	PNL#13
	EWMS Mode	Set as required	PNL#13
3.	**Check CNI switch**	UFC	
4.	**DED - UFC**		
	Comms	Set UHF and VHF as required	
	ALOW – MSL – BINGO	SET as required	
	CRUS – TACAN	SET to home base	
	VIP – VRP – Bullseye	SET as required	
	WSPAN	SET and check	
5.	**MFD**		
	DTE	Load	
	S – Jettison	Preset Jettison (exit S-J mode)	
	Flightplan	Check and set	
6.	**AUDIO**		
	COMM1/2 Volume	SET	PNL#15
	MSL /Threat Volume	SET	PNL#15
	ILS Volume knob	SET	PNL#15
7.	**ECM panel**	As required	(B52)

TRIM CHECK

1. TRIM AP DISC switch	DISC	PNL#12
2. Stick TRIM Button	Activate in ROLL and PITCH (no stick mvt)	
	Check for no trimwheel and indicator motion	
3. TRIM AP DISC switch	NORM	PNL#12
4. Actuate Trims	Nose down/up	
	Flaperons L/R	
	Rudder L/R	
5. Trims	All NEUTRAL (reset)	

BEFORE TAXI

1. Landing Lights	ON	PNL#1
2. Drift Co Switch	Set Norm	ICP
3. INS Check	Check Stage 8.3	
	Check ALIGN flashes in HUD	
4. INS switch	NAV position	PNL#9
5. Canopy	Closed – locked - no light	
6. Aircraft Lights	Set Wing /Fus ON	PNL#2
7. Radio Tower	Request Taxi	

Note 1: Beware of spending excessive time checking the aircraft. Always refer to your next TOS.
Note 2: Be sure the INS reaches stage 3 or higher before scrambling. Below stage 3 initial alignment, Gyros, Hud pitch ladder, compasses, HSI,will be inop
Note 3: Excessive use of wheel brakes and/or differential braking is to be avoided Maximum safe taxi speed on ramps is 20Kts.
Max 80% RPM - Think FOD!

TAXI

1. NoseWheel Steering	Engage	SHF /
2. Parking Brake	Release	PNL#1
3. Seat	Armed – Caution light OFF	
4. Speedbrake	Check Closed	
5. Wheelbrakes	Test	

IF CHECKS (During Taxi)

1. Pressure Instruments
   - AIRSPEED: Zero
   - ALTIMETER: Set (NI)
   - VVI: Zero – Remember possible errors.
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.	ALT FLAPS switch	NORM	PNL#18
2.	ENG CONT switch	PRI	PNL#7
3.	HUD	As required (declutter)	
4.	Trim	T/O setting	PNL#12
5.	Departure Clearance	Received	
6.	Radar Altimeter	Set ON	PNL#10
7.	Stores Config Switch	Cat1/Cat3 as required	PNL#1
8.	GND JET ENABLE switch	As required	PNL#1
9.	EXTERNAL TANKS	Check feeding then NORM	PNL#5
10.	CAUTION/WARNING lights	All OFF	
11.	Tacan	Verify reading if available	
12.	Review Speeds Rotation , T/O, Climb speeds	Commit to memory	
13.	HSI	Check on Runway heading	
14.	INS	Check NAV	PNL#9

NORMAL TAKE OFF

1. RPM 80%	Check gauges & lights Oil pressure increase – nozzle closing Engine instruments in the green NO CAUTION / NO WARNING	
2. Brakes	Release	
3. Throttle	Full MIL, AB as required	
4. NWS	Disengage at 70 kts	SHF /
5. Rotation	As computed	
6. Positive Climb	(VSI + Alt) Brakes, Gear Up	

Action/Note: Apply Power smoothly, note computed speeds for 8-12 degrees pitch rotation as briefed.
Warning: Do not exceed 14 degrees pitch in rotation.

AIRBORNE

1. Landing Light	Off	PNL#1
2. U/C	Check Retracted - handle light Off	
3. Engine	Gauges in the Green	
4. FUEL	Verify Tank feeding and set NORM	PNL#5
5. Radio	Call airborne	
6. DED	STP mode, Select NXT	
7. MFD	Cycle – As Required	
8. Drift Co Switch	Set Drift	ICP
9. Radio	Channel – As Required	
10. Wingman	Set Formation and Route	
11. Altimeter	Declare transition level (Alt settings NI)	

FENCE IN

1. Master Mode	As Required AG or AA	
2. Master ARM	Set ARM	PNL#16
3. Radar	As Required	
4. Chaff/ Flares PGM mode	As Required	PNL#13
5. ECM Jammer	As Required	PNL#13
6. RWR	Check On	PNL#13
7. RWR Mode	Diamond Float mode or as required	PNL#26
7. PFD	Check no Faults	
8. Master A/C Lights	Check Off	PNL#12
9. MFD	Cycle/ Req data	
10. A/G Weapons	Set release parameters	
11. Laser Switch	ON if required	PNL#16
12. Volumes	Check threat, com, msl vol	PNL#15
13. TGP pod	Activate if required – double check	
14. AGM65 Missile power	Check ON if required – double check	
15. AIM-9 Cooling head	Check Cool	
16. CAT config	Check correct	PNL#1
17. Radio Flight	Set Defensive Formation	

Note:
Avoid Radio Chatter when entering enemy airspace unless in case of emergency. Use A/C or hands signals instead.

INITIAL POINT

1. Radio Flight	Split, Weapons Free, Engage	
2. Master ARM	Check ARM	PNL#16
3. Weapons	Check SET	
4. Attitude	Check Speed and ALT	
5. DED A-LOW	SET on Weapon Min release	
6. Threat	Assume (A/A) - AWACS	
7. Master Mode / Radar	As Required	
8. CounterMeasures	Check As Required	
9. Radio	Call in HOT	

EGRESS

1. Heading	Check to friendly airspace	
2. Caution Panel	Check for Damage	
3. Master Mode	As Required (A/A)	
4. Awacs	Check Nearest threat	
5. MFD	Cycle As Required	
6. Store config	Set Cat I (if possible)	PNL#1
7. ECM Jammer	As Required	PNL#13
8. EWMS mode+pgr	At pilot discretion	PNL#13
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 CatI config. If threat is less than 10 Nm, Use Dogfight Mode

FENCE OUT

1. Threat	Assume A/A Threat - AWACS	
2. Master ARM	Set Safe (According to Threat)	
3. Laser switch	Set Off	PNL#16
3. Master Mode	Set Nav	
4. Radar	Off (According to Threat)	
5. ECM Jammer	Off (According to Threat)	PNL#13
6. RWR Mode	As required	
7. Chaff/ Flares Auto disp	Set Off	PNL#13
8. PFD	Check no Faults	
9. Radio Flight	Fuel Check (Dest or Alt)	

IF CHECKS MNEMONIC

Holding/enroute

W	Weather
H	Holding
O	Obtain app clearance
L	Letdown plate review
D	Descent checks
S	Speeds

Approach setup

M	Minimas
A	Altimeter
I	Initial descent rate
L	Letdown plate
M	Missed Approach
A	Approach speeds
N	Navaids

REFUELING

Tanker rejoin :

1. Radio	Request Refueling	
2. TCN	Select TCN Channel (Texaco)	
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	PNL#16
7. Sensors	Check Nose Cold	
8. EW Mode knob &ECM	STBY and OFF	
9. FCR	STBY	
10. RDR ALT	STBY	
11. EXT Lights	DIM (night) – STEADY	
12. ANTI COLLISION light	OFF at Night	
13. AIR REFUEL switch	Open	PNL#3
14. AR status indicator	Check RDY Light On	

Contact:

15. Boom Operator	Follow Instructions and Lights
16. AR status indicator	Check AR/NWS Light On
17. Fuel Transfer	Monitor

Disconnect:

18. A/R DISC button	Depress
19. Throttle	Decrease power

Post Air refueling:

20. Air Refuel switch	CLOSE
21. Fuel quantity	Check
22. Master Arm / SMS	As required
23. Tacan	As required
24. EW Mode knob &ECM	As required
25. FCR	As required
26. RDR ALT	As required
27. EXT Lights	As required

Note: Tanker overtake speed
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.

Note:
For Approach use the F4 Letdown plates

DESCENT

1. Master Mode	Set NAV	
2. Master ARM	Set Safe	PNL#16
3. Altimeter	Set & Check (transition ALT) Check altimeter readings vs HUD altitude	
4. Approach plates	Reviewed	
5. Instr Mode Select switch	TCN/ILS or NAV/ILS	PNL#21
6. TACAN channels	Set according to approach plate	
7. HSI course and bearings	Set according to approach plate	
8. GPS	Input coordinates of IAF	
9. Speeds	Compute final approach speeds	

See Quick Reference charts volume to compute speeds

APPROACH

1. Radio Tower	Call Inbound	
2. HUD	Set (declutter, cycle mode)	
3. Fuel	Check Quantity/Transfer/Balance	PNL#5
4. Radio Flight	Assume LDG priorities	
5. At IAF	Follow ATC procedures unless Visual Approach.	

BEFORE LANDING

1. Radio Tower (5Nm out)	Request Landing	
2. A/C Weight	Verify/Update Vref	
3. A/C LDG/Taxi Lights	Set On/ On	PNL#1
4. Gear	Check 3green-handle light off	
5. Speed brake	Fully Deployed	
6. Drift Co switch	Set Norm	ICP
7. Traffic	Announce traffic in sight if required	
8. Radar/EW	Check all STBY	PNL#13

Note:
Unless previously cleared aerobatic manoeuvre is not permitted over the airfield.
Pitch and bank should not exceed 70° IAS<250.

FINAL APPROACH

1. Speed brake	Extended
2. Gear	Down 3 greens
3. Speed	Vref as computed
4. AoA	Green : 11°
5. Touchdown	11 to 13° AOA

LANDING

1. Speed	Throttle Idle
2. AOA	Maintain 13° for max aerobraking
3. Speed 80 kts	Nosewheel: On the ground Maintain Full aft stick Engage NWS at taxi speed or when req.
4. Wheel brakes	As required

AFTER LANDING

1. Speedbrake	CLOSED	
2. ILS	OFF	PNL#15
4. Landing/ Taxi Lights	As required	PNL#1
5. Radar Alt	OFF	PNL#10

PRIOR TO ENGINE SHUT DOWN

1.	Parking Brakes	Set	PNL#1
2.	Ejection Seat	Safe	
3.	RWR PWR	OFF	PNL#13
4.	JMR PWR	OFF	PNL#13
5.	Chaff & Flares CMDs	OFF	PNL#13
6.	HUD	ICP SYM knob OFF	PNL#11
7.	L/R Hardpoints	Power OFF	PNL#10
8.	FCR	Power OFF	PNL#10
9.	FCC	Power OFF	PNL#9
10.	SMS	Power OFF	PNL#9
11.	MFD	Power OFF	PNL#9
12.	UFC/DED	Power OFF	PNL#9
13.	D/Link	Power OFF	PNL#9
14.	GPS	Power OFF	PNL#9
15.	INS	Power OFF	PNL#9
16.	EPU	OFF (No crewchief able to insert the EPU pin)	
17.	CNI switch	BACKUP	

ENGINE SHUT DOWN

1.	AIR Source	Set OFF	PNL#6
2.	Radios & Volume knobs	All OFF	PNL#15
3.	Throttle	- Stabilize ar 75-78% RPM for 5-10 sec - Idle to allow nozzle to open (1 to 2 sec)	
4.	Throttle (Idle Detent)	Cut OFF position	PNL#20
5.	EPU Light check	EPU GEN / EPU PMG lights OFF	PNL#4
6.	Engine Feed switch	Set OFF	PNL#3
7.	Master FUEL Switch	Set OFF	PNL#3
8.	Master LIGHT switch	OFF	PNL#2
9.	Canopy	Open	
10.	Main Power	OFF -2 clicks at 0% RPM	PNL#4

HOTPIT REFUEL

Prior to HOTPIT Entry

1. AFTER LANDING CHECKS	Complete	
2. Radio Frequency	Check proper tower frequency tuned	
3. AIR REFUEL switch	Open ; RDY light ON	PNL#3
4. TACAN power knob	Power OFF	PNL#15
5. GND JETT ENABLE switch	OFF	PNL#2

Prior to Hot Refueling

1. EPU switch (safety pin in)	OFF	PNL#4
2. Canopy	As desired	
3. Radio	request Hot Refueling	

During Hot Refueling

2. Radio freq	Monitor Tower freq & guard
3. Flight controls	Do not touch - Ensure hands are visible

Hot Refueling complete

1. AIR REFUEL switch	CLOSE	PNL#3
2. EPU GEN & EPU PMG lights	Confirm OFF	
3. EPU switch (safety pin out)	NORM	PNL#4
4. Taxi	Taxi clear of the hotpit area and contact Tower	

Note:

Hotpit refueling requires ground crew to establish intercom communication, inspect tires and install the EPU saftety pin. This last action is simulated by switching the EPU OFF during hotpit refuel

SUPPLEMENTAL PROCEDURE : ILS

1. DED	Verify CNI display
2. T-ILS button	Depress and Release
3. ILS frequency	Key in and ENTR
4. DCS	Position asterisks about selectable items.
5. HSI	Set Inbound localizer course
6. INSTR Mode knob	ILS/TCN or ILS/NAV

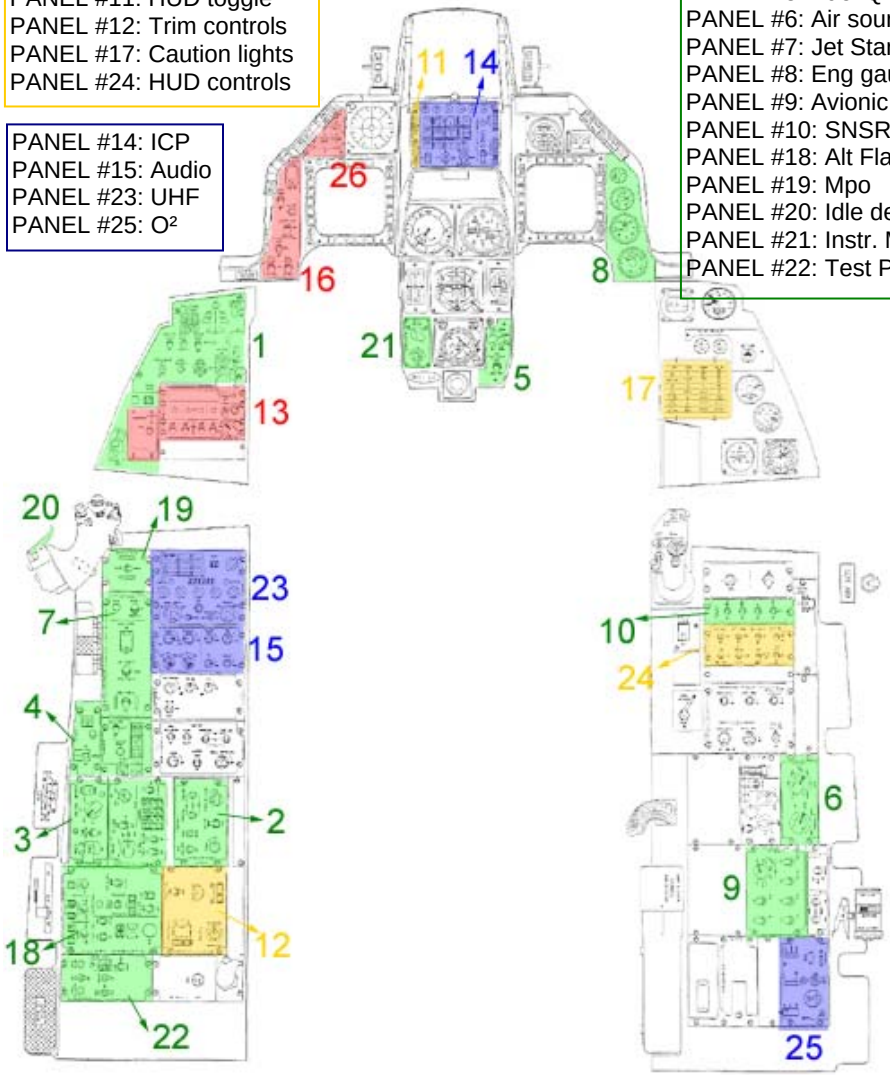
COCKPIT LAYOUT

PANEL #13: EW Management
PANEL #16: MISC (armement)
PANEL #26: TWP (RWR)

PANEL #11: HUD toggle
PANEL #12: Trim controls
PANEL #17: Caution lights
PANEL #24: HUD controls

PANEL #14: ICP
PANEL #15: Audio
PANEL #23: UHF
PANEL #25: O²

PANEL #1: Gear panel
PANEL #2: Ext lights
PANEL #3: Fuel Panel
PANEL #4: EPU Panel
PANEL #5: Fuel QTY
PANEL #6: Air source
PANEL #7: Jet Start
PANEL #8: Eng gauges
PANEL #9: Avionic pwr
PANEL #10: SNSR pwr
PANEL #18: Alt Flaps
PANEL #19: Mpo
PANEL #20: Idle detent
PANEL #21: Instr. Mode
PANEL #22: Test Panel



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