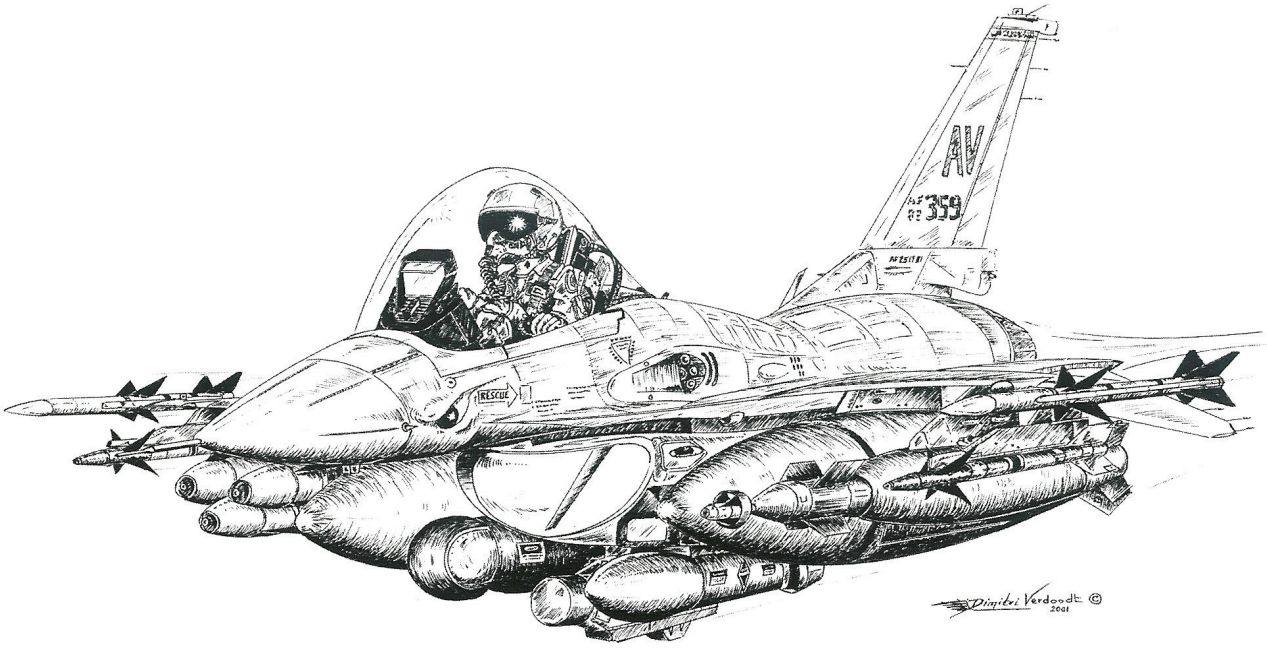

F-16

Block 50/52 (GE129)

Checklists - Main Volume

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

CONTENTS

NOTE:
Refer to Cockpit Interior check Rev 1107 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	SAFE (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 - no light

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
2.	THROTTLE	Advance to IDLE at 20% RPM minimum.
3.	Idle Detent	Toggle (Unless idle/cutoff code enabled in bmsconfig)
4.	SEC caution light	Check OFF around 20% RPM
5.	ENGINE warning light	OFF at 60% RPM
6.	JFS Switch	Confirm OFF (snaps OFF at 55% RPM)
7.	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. Without external power connected, only the RPM and FTIT indicators function until the standby generator is online.

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.

AFTER ENGINE START

1. **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)

2. AVIONICS POWER Panel

a. MMC (FCC) switch: ON
b. ST STA (SMS) switch: ON
c. MFD switch: ON
d. UFC switch: ON
e. DL (MAP) switch: ON
f. GPS switch: ON
g. INS: Select ALIGN NORM

3. SNSR PWR panel:

a. LEFT HDPT switch: OFF unless required
b. RIGHT HDPT switch: As required
c. FCR switch: FCR
d. RDR ALT switch STBY

4. HUD Panel: **As desired**
Set HUD SYM WHEEL ON

5. CNI (C&I) knob : **UFC**

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

7. UFC radio: **Set COM1 & COM2 frequency as briefed.**

8. MFL: **Reset (MFD TEST page)**

9. SEC check :

May be delayed until the 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%

10. FLIGHT CONTROLS: CYCLE & CHECK

AFTER ENGINE START (Continued)

11. 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. A BIT pass message appears on the FLCS MFD page

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.

12. SPD BRK switch: Cycle

13. WHEELS down lights: Three green

14. 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

15. EPU FUEL QTY: 95 – 102%

AFTER ENGINE START (Continued)

16. 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)
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
g. DED – UFC	
ALOW – MSL – BINGO:	Check
CRUS – TACAN - IDM:	Check
Bullseye:	SET & Mode Selected.

17. DBU CHECK (AFTER FLCS BIT completed)

a. DIGITAL BACKUP switch:	BACKUP
b. DBU ON warning light:	Verify ON
c. Operate controls:	All surfaces respond normally
d. DIGITAL BACKUP switch:	OFF
e. DBU ON warning light:	Verify OFF

18. 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

AFTER ENGINE START (Continued)

19. 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

20. EPU CHECK

a. EPU GEN and EPU PMG lights: Confirm OFF
b. O^2: 100%
c. Toe brakes: Engage
d. EPU switch: OFF
e. EPU switch: NORM
f. THROTTLE: 80%
g. 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
h. EPU/GEN TEST switch: Release (OFF)
i. THROTTLE IDLE
j. O^2: NORMAL
If no run light within 10 sec, reinitiate test with throttle at IDLE +15%

21. 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

BEFORE TAXI

1. Landing Lights	ON
2. Drift Co Switch	Set Norm
3. INS Check	Check Stage 8.3 Check ALIGN flashes in HUD
4. INS switch	NAV position
5. Aircraft Lights	As SOP (AC ON – Wing/fus: ON – FLASH)
6. QNH	Confirm QNH received from lead or tower
7. Radio Tower	Remove chocks

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. As long as GPS switch is ON, the Falcon INS will be accurate from 90 seconds after initial alignment (AUX flag going 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	Engage
2. Parking Brake	Release
3. Seat	Armed – Caution light OFF
4. Wheelbrakes	Test
5. IDM	Check in sequence

IF CHECKS

1. Pressure Instruments
   - AIRSPEED: Zero
   - ALTIMETER: Set
   - 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.	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.	ENG CONT switch	PRI
6.	Speedbrake	Check closed
7.	Departure Clearance	Received
8.	Radar Altimeter	Set ON
9.	Stores Config Switch	Cat1/Cat3 as required
10.	GND JET ENABLE switch	As required
11.	External Tanks	Check feeding then NORM
12.	Flight Controls	Cycle
13.	OIL pressure	Check PSI
14.	All warning & caution lights	Check OFF
15.	Tacan	Verify reading if available
16.	Review Speeds Rotation , T/O, Climb speeds	Commit to memory

NORMAL TAKE OFF

1.	HSI	Check on Runway heading
2.	Toe brakes	HOLD
3.	RPM 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) Brakes, Gear Up

- Normal engine operation during MIL takeoff is indicated by an exhaust nozzle position of 15% or less after 5 seconds at MIL.
- Normal engine operation during an AB takeoff is indicated by the nozzle preopening up to 10% more than MIL when AB is first selected. AB is indicated by an increasing fuel flow and nozzle position.
- 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. Landing Light	Off
2. U/C	Check Retracted - handle light Off
3. Engine	Gauges in the Green
4. FUEL	Verify Tank feeding and set NORM
5. Radio	Call airborne or visual
6. DED	STP mode, Select NXT
7. MFD	Cycle – As Required
8. DRIFT CO Switch	Set Drift
9. Wingman	Set Formation and Route

AERIAL REFUELLING

Tanker rejoin :

1. Radio	Request Refuelling (within 10Nm)
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
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
14. AR status indicator	Check RDY Light On
15. Seat	SAFE (As desired)

Contact:

16. Boom Operator	Follow Instructions and Lights
17. AR status indicator	Check AR/NWS Light On
18. Fuel Transfer	Monitor (List - #2)

Disconnect:

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

Post Air refuelling:

21. Seat	ARM
22. Air Refuel switch	CLOSE
23. Radio	Call DONE refuelling.
24. Master Arm / SMS	As required
25. Tacan	As required
26. EW Mode knob &ECM	As required
27. FCR	As required
28. RDR ALT	As required
29. 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.

FENCE IN

1. Master Mode	As Required AG or AA
2. Master ARM	Set ARM
3. Radar	As Required
4. Chaff/ Flares PGM mode	As Required
5. ECM Jammer	As Required
6. RWR	Check On
7. RWR Mode	Diamond Float mode or as required
7. PFD	Check no Faults
8. Master A/C Lights	Check Off
9. MFD	Cycle/ Req data
10. A/G Weapons	Set release parameters
11. LASER Switch	ON if required
12. Volumes	Check threat, com, msl vol
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
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
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)
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 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
3.	Master Mode	Set Nav
4.	Radar	Off (According to Threat)
5.	ECM Jammer	Off (According to Threat)
6.	RWR Mode	As required
7.	Chaff/ Flares Auto disp	Set Off
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

Note:
For Approach use the F4 Letdown plates

DESCENT

1.	Master Mode	Set NAV
2.	Master ARM	Set Safe
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
6.	TACAN channel	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

APPROACH

See Quick Reference charts volume to compute speeds

1.	Radio Tower	Call Inbound
2.	Fuel	Check Quantity/Transfer/Balance
3.	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
4.	Gear	Check 3green-handle light off
5.	Speed brake	Fully Deployed
6.	Drift Co switch	Set Norm
7.	Traffic	Announce traffic in sight if required
8.	Radar/EW	Check all STBY

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

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 100 kts	Ride the nosewheel on the ground
	Maintain AFT stick
	Engage NWS at taxi speed or when req.
4. Wheel brakes	As required

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

1. Speedbrake	CLOSE
2. PROBEHEAT switch	OFF
3. ILS	OFF
4. Landing/ Taxi Lights	As required
5. Radar Alt	OFF

PRIOR TO ENGINE SHUT DOWN

1. Radio (tower 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. GPS	Power OFF
15. INS	Power OFF
16. EPU	OFF (No crew chief able to insert the EPU pin)
17. CNI 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. Canopy	Open
10. Main Power	OFF -2 clicks when RPM < 20%
11. Oxygen regulator	OFF & 100%

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
4. TACAN power knob	Power OFF
5. GND JETT ENABLE switch	OFF

Prior to Hot Refuelling

1. EPU switch (safety pin in)	OFF
2. Canopy	As desired
3. Radio	request Hot Refuelling

During Hot Refuelling

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

Hot Refuelling complete

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

Note:

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

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