References:

A. Airplane Flight Manual of L 410 UVP-E20

B. Check List of L 410 UVP-E20

CHECK LIST
L410 UVP-E20
103 ATTU BAF

FOREWORD

Pilot's Responsibility. The flight crew is required to use this check list when operating L410 UVP-E20 aircraft of Bangladesh Air Force.

Contents. This check list consists of five parts which are normal procedures, performance data, emergency procedures, abnormal procedures and limitations.

Flight Manual. This check list does not replace the amplified version of the procedures in the AFM. To fly the airplane safely and efficiently, it must be read and thoroughly understand why each step is performed and why it occurs in a certain sequence.

Concurrency. As changes are made to amplified check lists in the AFM, concurrent changes will be made to this check list so that both will agree.

Supplements, Changes And Revisions. Whenever the unit receives a supplement, change or revision affecting check list, necessary correction to be made in checklist under the authority of the officer commanding of the unit.

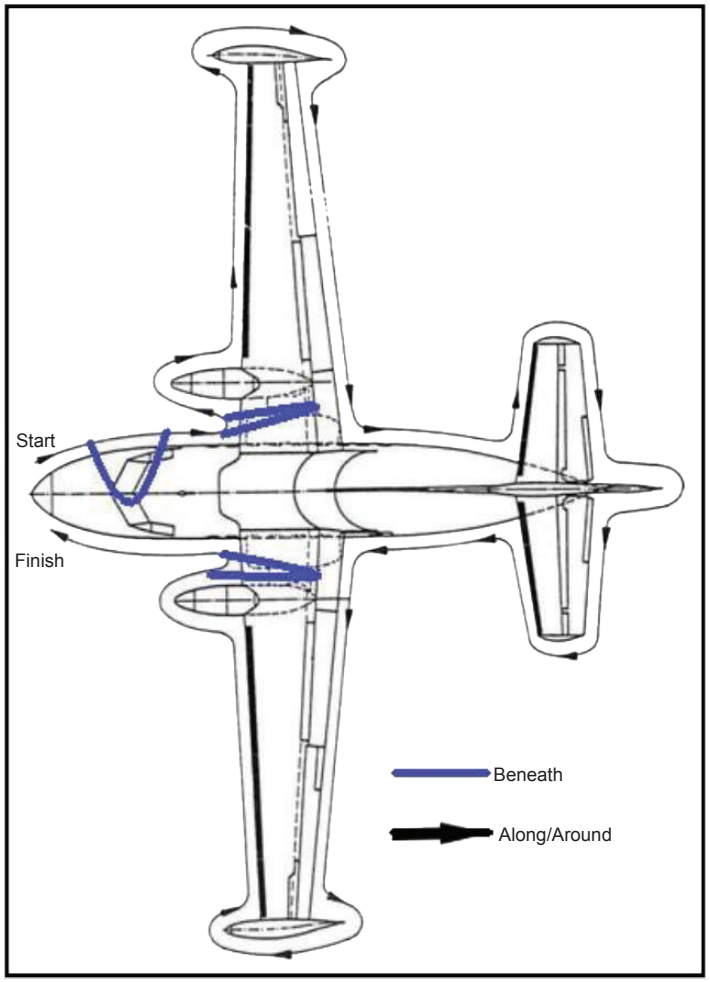
Crew Position And Checklist Readout. The check list will be initiated by PIC/Captain saying "Commence (title, e.g. COCKPIT) Check list" and carried out by designated crew. For all on ground checks, Co-Pilot will accomplish check list. For all in-flt checks, PM (Pilot Monitoring) will accomplish except Ops Normal Checklist and Finals Check list. The accomplishment will be made with **'challenge and response'** method for each check. The following elaborates appropriate crew position and response required.

(P / CP)	=	Either crew responds to checklist item
(P) (CP)	=	Both crew responds to checklist item
(P)	=	Only PIC responds to checklist item
(CP)	=	Only Co-pilot responds to checklist item
(PF)	=	Pilot Flying responds to checklist item, but will identify and respond by original crew position, P or CP
(PM)	=	Pilot Monitoring responds to checklist item, but will identify and respond by original crew position, P or CP

NORMAL PROCEDURES

EXTERNAL INSPECTION

The external inspection to be performed from the airplane nose towards the right side of the fuselage, the right engine, the right landing gear, the right wing, to tail unit and similarly on the left side of the airplane, ending at the airplane nose.



EXTERNAL INSPECTION

FRONT AND RIGHT HAND FUSELAGE PART

1.	Nose cover locks	-	Closed / locked
2.	Skin, Search lights glazing	-	No damage
3.	Rotary ice detector	-	No damage
4.	Air ventilation intake	-	No foreign object
5.	Static pressure head covers	-	Removed
6.	Static pressure holes	-	No soiling
7.	Baggage compartment	-	Checked locked
8.	Cockpit window	-	No damage/soiling
9.	Wind shield wipers	-	No damage
10.	Fuselage Rubberstrip	-	No damage / unsticking
11.	Emergency exit	-	Closed
12.	Antenna on lower part of fuselage	-	No damage

NOSE LANDING GEAR

13.	Servo control tie rods	-	No damage
14.	Tire	-	No damage, deformation or under inflation

RIGHT PITOT PRESSURE HEAD

15.	Pitot pressure head cover	-	Removed
16.	Inlet and drainage holes of pitot pressure head	-	No damage or foreign object

RIGHT MAIN LANDING GEAR

17.	Tie rods	-	No damage
18.	Tire	-	No damage, deformation or under-inflation. Thermal, filler indicator check

RIGHT ENGINE

19.	Engine Covers	-	Closed / locked
20.	Propeller blades cover and blocking	-	Removed
21.	Propeller blades	-	No damage
22.	Propeller hub	-	No oil leakage
23.	Engine inlet cover	-	Removed
24.	Air inlet	-	No foreign object
25.	Separator vane	-	Closed

RIGHT WING

26.	Wing deicing system	-	No damage
27.	Wingtip (if installed)	-	No damage
28.	Wingtip tank (if installed)	-	No damage, deformation or fuel leakage. Filler neck closed
29.	Navigation lights	-	No damage
30.	Aileron trailing edge and flaps	-	No damage
31.	Static dischargers, aileron, wing tip tank	-	No damage and missing allowed

32.	Aileron control rods	-	No damage
33.	Flaps control rods	-	No damage
34.	ABC tabs, spoiler	-	Closed
35.	Control locks	-	Removed
36.	Fuel tank filling neck	-	Closed

RIGHT HAND SIDE OF FUSELAGE			
37.	Emergency exit	-	Closed
38.	Emergency lights	-	No damage
39.	Lavatory door (if installed)	-	Closed

TAIL UNIT			
40.	Tail deicing system	-	No damage
41.	Elevator and rudder trailing edges	-	No damage
42.	Elevator and rudder control rods	-	No damage
43.	Control locks	-	Removed
44.	Static wicks	-	No damage and missing allowed
45.	Anti Collision Beacon	-	No damage
46.	VOR Antenna	-	No damage

REAR PART OF THE FUSELAGE			
47.	Static discharger	-	No damage and missing allowed
48.	Ventral fin	-	No damage

LEFT MAIN LANDING GEAR – Same inspection as right side

LEFT ENGINE – Same inspection as right side

LEFT WING – Same inspection as right side

LEFT HAND SIDE OF FUSELAGE			
49.	Emergency exit	-	Closed
50.	Emergency lights	-	No damage
51.	Rubber strip on the fuselage	-	No damage
52.	Static ice detector and light	-	No damage

LEFT PITOT PRESSURE HEAD – Same inspection as right side

FRONT AND LEFT HAND FUSELAGE PART			
53.	Air ventilation intake	-	No foreign object
54.	Static pressure hole covers	-	Removed
55.	Static pressure holes	-	No soiling
56.	Cockpit window	-	No damage/soiling
57.	Windshield wipers	-	No damage
58.	Fuselage Rubber strip	-	No damage/ unsticking
59.	Antenna on the lower part of the fuselage	-	No damage
60.	Baggage compartment door	-	Closed and locked

INTERNAL INSPECTION
PILOT'S COMPARTMENT PREPARATION

1.	Seat	-	Adjusted	(P) (CP)
2.	Seat belt & shoulder harness	-	Fasten, unlocked	(P) (CP)
3.	Oxygen bottle pressure	-	Checked	(P) (CP)
4.	Oxygen system	-	Checked	(P) (CP)
5.	Headset	-	On	(P) (CP)
6.	iPad	-	On/set	(P) (CP)
7.	Control lock	-	Removed	(P)
8.	Flight controls free and unrestreicted motion of controls	-	Check	(P)
9.	RH sidewall Fuse Panel	-	In	(CP)
OVERHEAD CB PANEL – sw on left to right				
10.	Upper two rows CBs	-	On	(CP)
	(Except Air-condition and Lighting)			
11.	Power supply CBs	:		
	Battery I, II	-	On	(CP)
	Inverter 36V I	-	On	(CP)
12.	Avionics I CBs	:		
	Intercom I, II; Comm I, II Nav/GPS I, II	-	On	(CP)
	St/by Instruments CB	-	On	(CP)
13.	Engines CBs	:		
	Engine starting / ELU	-	On	(CP)

14.	De-Icing CBs	:		
	Cockpit Fan	-	On	(CP)
15.	External Power/Batteries	-	On; (20 V min)	(CP)
16.	Heating	-	Closed	(P)
17.	Lamp test	-	Carry out	(P)
18.	Fire Signaling System	-	Check	(P)
19.	Fuel quantity main & tip tank	-	Checked	(P) (CP)
20.	Parking brake	-	STOP, pressure 40+5 kg/cm^2	(CP)
21.	Windshield heating	-	Off (Zero)	(CP)
22.	Propeller deicing	-	Off (Zero)	(CP)
23.	Pitot heating	-	Off	(CP)
24.	Airframe deicing	-	Off	(CP)
25.	CVR	-	Checked	(CP)
26.	FDR-'FDR ON' light	-	Check on	(CP)
27.	Audio Panel	-	On, all & volume set	(P) (CP)
28.	Intercom System	-	Checked	(P) (CP)
29.	Landing gear	-	Down	(CP)
30.	Landing gear lever lock	-	Removed & stowed	(CP)
31.	Fire Ext push button covers	-	Closed & wire locked	(P) (CP)
32.	Nose wheel steering	-	Off	(CP)

33.	Spoiler, ABC, Auto feather	-	Off	(CP)
34.	Anti-skid switch	-	On	(CP)
35.	Flaps	-	0^0	(CP)
36.	PCL	-	Feathered	(CP)
37.	TCL	-	Idle	(CP)
38.	Reverse thrust latch	-	Forward	(CP)
39.	Elevator trim	-	Set	(CP)
40.	Aileron trim	-	Neutral, light on	(CP)
41.	Rudder trim	-	Neutral	(CP)
42.	Fuel fire cocks	-	Closed	(CP)
43.	Fuel stop cock	-	Closed	(CP)
44.	Passenger briefing if require	-	Done	(P / CP)
45.	Cockpit Checklist	-	Completed	(P) (CP)

BEFORE START

1.	Entry door	-	Closed, DOOR Lt Off	(CP)
2.	VHF (Main & St/by)	-	Freq & Vol set	(P) (CP)
3.	Startup clearance	-	Obtained	(P / CP)
4.	Clock and Stopwatch	-	Time set & ready	(P) (CP)
5.	Hydraulic Press	-	Ck below 100 kg/cm^2	(P) (CP)
6.	Propeller lock	-	Removed	(P / CP)

7.	Engine and propeller area	-	Check Clear	(P / CP)
8.	Fire extinguisher	-	In place	(P / CP)
9.	Fuel Pump (LH & RH)	-	On	(CP)
10.	Fire Fuel Cocks	-	Open (Full down)	(CP)
11.	FUEL PRESSURE Lt	-	Off	(CP)
12.	Anti Collision Beacon	-	On	(CP)
13.	Before Start Checklist	-	Completed	(P) (CP)

ENGINE STARTING

1.	Starting signal to ground crew	-	Given	(P / CP)
2.	Cockpit Windows	-	Closed	(P) (CP)
3.	Engine Starting (Lt/Rt) button	-	Push and hold for 3 sec	(CP)
4.	Stopwatch (start together)	-	With serial 3	(CP)
5.	Fuel stop cock up to red line	-	At 3 sec	(CP)
6.	'ENGINE STARTING' & 'LIMITER ACTIVE' Lt	-	Check ON	(P) (CP)
7.	ITT Rises	-	Within 6″- 8″	(P) (CP)
8.	ENGINE OVER LIMIT Lt	-	Flashing	(P) (CP)
9.	Max ITT	-	By 13″-15″	(P) (CP)
10.	n_G, Oil pressure check	-	Within limit	(P) (CP)
11.	ENGINE STARTING & LIMITER ACTIVE Lt	-	Off (23″)	(P) (CP)
Once Engine has started and stabilized				
12.	Fuel stop cock fed up to	-	OPEN detent	(CP)

13.	Hydraulic pressure (within 25″)	-	Check	(CP)
14.	PCL (Corresponding Eng)	-	Fine Pitch	(CP)
15.	DC and AC Generator (Corresponding Eng)	-	On	(CP)
16.	Engine parameters check	-	Within limit	(CP)
17.	n_G	-	Increase to min 65% (max 70%)	(CP)
18.	External Power	-	Signal to Disconnect	(CP)
19.	'EXT POWER SUPPLY' Lt	-	Off verified	(CP)
20.	Stopwatch	-	Reset	(CP)

Starting 2nd Engine				
21.	Propeller lock	-	Removed	(P / CP)
22.	Engine and propeller area	-	Check Clear	(P / CP)
23.	Fire extinguisher	-	In place	(P / CP)
Same as of serial 1 to 16 of Starting Engine Check				
24.	Both TCL	-	Idle	(CP)
25.	DC and AC Generator (Corresponding Eng)	-	On	(CP)
26.	Stopwatch	-	Reset	(CP)
27.	Starting Engine Checklist	-	Completed	(P) (CP)

Note:

1. In case of battery start CP is to monitor voltage drop meticulously.

ABORT START		
Time	Indication / Condition	Abort Action
Start button press	LIMITER ACTIVE light does not lit	Start button release (if require)
1-3 sec	No prop rotation	Fuel stop cock / Emergency throttle levers CLOSED ENGINE STARTING CB 'OFF'
8 sec	No rise in ITT	
-	ITT rises fast, tendency to exceed maximum limit	
-	Oil pressure does not rise	
-	Batt voltage drop 14V or below more than 4 sec	
-	Flames from exhaust pipe	
-	Unusual Noise during starting	
Beyond 23 sec	ENGINE STARTING & LIMITER ACTIVE light ON	
25 sec after 1st eng start	No rise in hydraulic pressure	

DRY MOTORING				
1.	TCL	-	Idle	(P)
2.	PCL	-	Feathered	(P)
3.	Fuel fire cocks	-	Open	(P)
4.	Fuel stop cock	-	Shut	(P)
5.	Battery I, II	-	On	(P)
6.	Inverter 36 V I, II	-	On	(P)
7.	ENGINE STARTING	-	On	(P)

8.	Fuel Main Pump	-	On	(P)
9.	Dry Motoring Run button	-	Push	(P)
10.	Dry motoring process cuts out	-	After 20 sec	
11.	After the gas generator stopped: Fuel Main Pump	-	Off	(P)

AFTER START

OVERHEAD CB PANEL – (switch on left to right)				
1.	Power Supply CBs	-	On	(CP)
2.	Avionics I CBs	:		
	All except TCAS	-	On	(CP)
3.	Engines CBs	:		
	Prop Feathering/ Auto Bank Control	-	On	(CP)
4.	De-Icing CBs	:		
	Rotary ice detector	-	On	(CP)
5.	Avionics II CBs	:		
	Radar & EFB	-	On	(CP)
	All CBs (Rt to Lt)	-	On	(CP)
6.	Lighting CBs	:		
	Position Lights	-	On	(CP)
	Instrument avionics & cockpit (for night flt)	-	On	(CP)
7.	Avionics I CBs			

8.	Electric Trim	-	Test	(P)
9.	Heating / Air Conditioning	-	On/As Reqr	(P)
10.	DCP	:		
	V_1 / V_R / V_2	-	Set	(P) (CP)
	Radio Altimeter	-	Set DA/RA	(P) (CP)
11.	CHP	-	Course Set	(P) (CP)
12.	TCAS	-	Test	(CP)
13.	Autopilot	-	Test	(P)
14.	Spoiler, ABC, Auto Feather	-	On	(CP)
15.	Windshield Heat	-	Set to I	(CP)
16.	Prop Deicing	-	Set as reqr	(CP)
17.	Electric System check	-	within limit	(CP)
18.	Radio navigation aids (VOR, ILS & ADF)	-	On, freq set	(P) (CP)
19.	Compass system and hdg	-	Check note error	(P) (CP)
20.	GTN 750/650	-	Flt Plan Set	(P) (CP)
21.	Flight / Engine Instruments	-	Check within limit	(P) (CP)
22.	Auto feather & pitch lock test	-	Checked (1st flt of day only)	(P)
23.	After Start Checks	-	Completed	(P) (CP)

TAXI

1.	Taxi clearance	-	Obtained	(CP)
2.	Altimeter (PFD & ESI)	-	Set QNH	(P) (CP)
3.	TCAS / Transponder	-	Code set	(CP)
	Mode sel	-	S/by or as reqr	(CP)
4.	Nose wheel steering	-	Manual, check lt on	(P)
5.	AUTO BANK CONTROL	-	Green lt on	(CP)
6.	TCL	-	Idle	(P)
7.	Reverse thrust latch	-	Aft	(P)
8.	PCL	-	Fully Fine	(P)
9.	Lighting system (night flt)	-	Adjusted	(P) (CP)
10.	Fasten seat belts CB	-	On	(CP)
11.	Passenger cabin light CB (for night flt)	-	Both On (1/3, 2/3) / As Reqr	(CP)
12.	TAXIING LIGHTS I, II	-	On	(P)
13.	Taxi Signal	-	Given	(P)
14.	Parking brake	-	Released	(CP)
15.	Brakes & Press	-	Checked	(P) (CP)
16.	Taxi Checks	-	Completed	(P) (CP)

BEFORE LINE UP

1.	Doors and windows	-	Closed, Check 'DOOR' Lt off	(P) (CP)
2.	Propeller hyd system (PCL fwd / aft twice during taxi)	-	Vented and ck	(P)
3.	Instruments check (twice at 90º turns)	-	Carried out	(P) (CP)
4.	Engine parameters check	-	Within limit	(P) (CP)
5.	Flaps 18º	-	Set, Lt on	(CP)
6.	Trimmers	-	Set for T/O	(P) (CP)
7.	Nose wheel steering	-	PEDEL lt on	
8.	BETA RANGE & Reverse Power Op during fwd movt	-	Check	(P)
9.	Passenger cabin light CB (for night flt)	-	Both On (1/3, 2/3) / As Reqr	(CP)
10.	Takeoff briefing	-	Carried out	(P) (CP)
11.	Before Lineup Checks	-	Completed	(P) (CP)

LINE UP

1.	Nose wheel steering	-	Pedal	(P)
2.	PEDAL STEERING signal cell	-	On	(P) (CP)
3.	Flight control full and free movt (except rudder)	-	Check	(PF)
4.	Hdg (HSI, R/W Hdg & St/by Compass)	-	Sync, check note error (±5º)	(P)
5.	TCL	-	Idle	(P) (CP)

6.	PCL	-	Fully Fwd	(P) (CP)
7.	Autopilot disconnect Sw	-	PRESS	(PF)
8.	Heating/Air Conditioning	-	Off	(P)
9.	Departure briefing	-	Carried out	(PF)
10.	TCAS / Transponder mode	-	TA / RA	(PM)
11.	Lineup Checklist	-	Completed	

TAKE-OFF

1.	T/O Clearance	-	Obtained	(PM)
2.	Altitude Selector	-	Set target alt	(PM)
3.	Landing/Taxi Lt	-	LANDING	(P)
4.	TCL advance	-	85% n_G	(PF)
5.	Engine parameters	-	Stabilized	(P) (CP)
6.	Pitot, static and stall probes heating	-	On	(CP)
7.	TCL advance	-	T/O power	(PF)
8.	Auto Feather (green it on)	-	On	(P) (CP)
9.	Clock (FT)	-	Press for 3”	(P) (CP)
10.	Up and Ahead	-	Clear	(P) (CP)
Brake release, Roll straight				

AFTER TAKE-OFF

1.	Aircraft clear off the grd	-	Confirmed	(PF)
2.	Brakes (at 10-16 ft)	-	Applied	(PM)
3.	Landing Gear	-	Up, 3 lights off	(PM)
4.	LANDING LIGHTS	-	Off	(PM)
At 400 feet AGL and Speed 110 KIAS				
5.	Positive Rate of Climb	-	Verified	(PF)
6.	Flaps	-	Up, Lt on	(PM)
7.	TCL	-	80% T_Q	(PM)
8.	PCL	-	1900 Rpm	(PM)
Crossing 1500′				
9.	Spoiler, ABC, Auto feather	-	Off	(PM)
10.	Heating/Air Conditioning	-	As Reqr	(P)
11.	Wx Radar	-	On/St-by	(PM)
12.	Passenger cabin light CB (for night flt)	-	As Reqr	(PM)
13.	After Take-off Checklist	-	Completed	(PM)

CLIMB

1.	Altitude Selector	-	Set target alt	(PM)
2.	Fasten seat belts switch	-	As required	(PM)
3.	TCL	-	Recom Torque	(PF)
4.	PCL	-	1900 rpm	(PF)
5.	Speed	-	110 KIAS	(PF)

6.	Engine Instruments	-	Within Limit	(PM)
7.	Crossing 1500‘ Spoiler, ABC, Auto feather	-	Off	(PM)
8.	Weather Radar	-	Check weather	(PM)
Passing Transition Altitude (4000’)				
9.	Altimeter (PFD & ESI)	-	QNH to QNE	(P) (CP)
10.	Climb Checklist	-	Completed	(PM)

CRUISE

1.	TCL (calculated torque)	-	Set	(PF)
2.	PCL	-	1700 rpm	(PF)
3.	Engine Instruments	-	Monitor	(P) (CP)
For fuel in wing tip tank				
4.	Wing tip tank LH, RH CB	-	On	(CP)
5.	Fuel	-	Qty/unbalance	(PM)
6.	Fasten seatbelt CB	-	As reqr	(PM)
Once fuel is exhausted from wing tip tanks				
7.	Wing tip tank LH, RH CB	-	Off	(CP)
8.	Wx Radar	-	Check Wx	(PM)
9.	Destination ATIS	-	Info received	(PM)
10.	Approach clearance	-	Obtained	(PM)
11.	Approach briefing	-	Completed	(PM)
12.	Cruise Checklist	-	Completed	(PM)

OPS NORMAL

1.	F - Fluid (fuel ,oil, hyd)	-	Check	(PF)
2.	E - Engine	-	Normal	(PF)
3.	E - Electrics & Avionics	-	Normal	(CP)
4.	L - Location & Look Out	-	Checked	(PF)
5.	CWD Panel	-	No warning Lt	(PF)
6.	Ops Normal Checklist	-	Completed	(PF)

PRE-DESCENT

1.	Fuel - Main & Tip Tank	-	Qty/unbalance	(PM)
2.	Wx briefing	-	Carried Out	(PM)
3.	Crew briefing	-	Carried Out	(PM)
4.	Passenger briefing	-	Done (pass)	(PM)
5.	Pre-Descend Checklist	-	Completed	(PM)

DESCENT

1.	Descent Clearance	-	Obtained	(PM)
2.	Altitude Selector	-	Set target alt	(PM)
3.	Fasten seatbelt CB	-	On	(PM)
4.	TCL	-	As require	(PF)
5.	Destination NAV COM	-	Set	(P) (CP)
6.	Weather radar	-	Check weather	(PM)