

## Checklist für Diamond DA40-Fixed Pitch

Edition #: **17** Edition date: **01.03.2015**

Please observe:

The file you are receiving hereby combines all three sections of the checklist: Normal Checklist, Emergency Checklist and Abnormal Checklist.

**All** pages of a new edition will have the same new "edition #" and "edition date", even if only one page was amended and all other pages still have the same, unchanged content.

Therefore the "List of Effective Pages" (LEP) is provided. It is here where you can see whether a particular page was amended. Pages which have been amended by a new edition will be marked yellow. For all other pages you will see which original "edition #" (and of course any higher "edition #") is still valid.

### Note:

The system of assigning "Edition #" is as follows:

- if the revision affects all types, a new edition # (without a decimal figure) will be assigned to all of the checklists
- if the revision does not affect all types, the affected checklists will get subsequent "decimal figures" until a major revision affecting all checklists is issued.

Have a lot of nice flights and happy landings!

Peter Schmidleitner

**Comments explaining Edition # 17 are on page 2 of this document**

### Checklist DA40-F G1000 LEP

Page	Following Edition   Date (or any higher) is valid	
Section : Normal Checklist		
1	14	01.12.2006
2	15.1	01.03.2015
3	14	01.12.2006
4	14	01.12.2006
5	14	01.12.2006
6	14	01.12.2006
7	15.1	01.03.2015
8	14	01.12.2006

<b>Section: Emergency and Abnormal Checklist</b>		
1	14	01.12.2006
2	14	01.12.2006
3	15	20.05.2010
4	14	01.12.2006
5	14	01.12.2006
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7	14	01.12.2006
8	14	01.12.2006
9	14	01.12.2006
10	14	01.12.2006
11	14	01.12.2006

## **Comments explaining Edition # 15**

**This is a major revision cycle and all checklists are now Edition # 15.**

### **Normal Procedures:**

Page 2:

Battery voltage check added.

Page 5:

Run up: recheck of C/Bs and voltage, throttle retard added;  
items 13-16 marked as "When cleared for Line Up"

### **Emergency Procedures:**

Page 3:

DOOR OPEN procedure revised

## **Comments explaining Edition # 17**

### **Preflight Procedures:**

Page 2:

Parking brake, chocks, towbar added

### **Normal Procedures:**

Page 7:

Parking Check, item 3:

Text of ELT check revised

# NORMAL CHECKLIST



This checklist is compiled according the guidelines of GAMA Specification No.1, SECTION 3, para 3.5, SECTION 3A, para 3A.5 and SECTION 4, para 4.5.

The "Amplified Normal Procedures", „Amplified Emergency Procedures“ and „Amplified Abnormal Procedures“ according GAMA Specification No. 1 are in the DA40 Airplane Flight Manual Chapters 4A, 3 and 4B.

This checklist is a Recommended Operator Checklist and for reference only.

It is not a substitute for and does not supersede the current approved Airplane Flight Manual or any of its supplements or parts thereof, or any training or procedures required by any regulatory or advisory bodies.

This checklist may not contain all procedures shown in the Airplane Flight Manual. For a comprehensive listing of all procedures consult the Airplane Flight Manual.

Use of the checklist is at the user's sole risk and discretion.

Any possible liability of Diamond Aircraft for any damages, injury or death resulting from its use is excluded.

All such terms and conditions shall be deemed to be explicitly accepted in full by using the checklist. If you do not understand, or if you disagree with, any of the above terms and conditions and in any jurisdiction that does not give effect to all provisions of these terms and conditions any use of the checklist is not permitted.

## Use of the electronic checklist (if available):

**Before using the electronic checklist on the G1000 the following sections have to be completed using this paper checklist:**

- Preflight interior + exterior
- Preflight exterior
- Check before engine start items 1 to 18 (may be completed by heart).

**This checklist also serves as a back up for the electronic checklist in case the G1000 MFD is not available.**

**PREFLIGHT INTERIOR + EXTERIOR.**

- 1 Check Aircraft papers
- 2 Remove pitot cover
- 3 Check interior for foreign objects
- 4 Check flight controls free
- 5 Check circuit breakers
- 6 Ignition OFF, key removed
- 7 Mixture IDLE CUT OFF
- 8 Essential bus OFF
- 9 Avionic Master + electrics OFF
- 10 Electric Master ON  
Check battery voltage
- 11 Electric fuel pump ON + OFF
- 12 Check fuel quantity
- 13 Parking brake SET
- 14 External lights ON
- 15 Check external lights
- 16 External lights OFF
- 17 Electric Master OFF

**PREFLIGHT EXTERIOR****Left main gear**

Wheel fairing  
Tire condition, pressure (2,5 bar),  
position mark  
Brake, hydraulic line

**Left wing**

Wing leading edge, top- and bottom  
surface, stall strips  
Drain fuel sump  
Stall warning  
Fuel vent  
Fuel filler cap  
Pitot, static probe (cover removed)  
Landing/Taxi light  
Wing tip, position light  
Static dischargers  
Aileron (freedom of movement,  
hinges, control linkage,  
security)  
Wing flap

**Left fuselage**

Canopy left side  
Rear door  
Fuselage left side  
Antennas

**Tail**

Elevator & rudder (freedom of  
movement, hinges)  
Trim - tab  
Tail skid + lower fin  
Static dischargers

**Right fuselage**

Fuselage right side  
Rear window  
Canopy right side

**Right wing**

Wing flap  
Aileron (freedom of movement,  
hinges, control linkage,  
security)  
Static dischargers  
Wing tip, position light  
Wing leading edge, top- and bottom  
surface, stall strips  
Fuel filler cap  
Fuel vent  
Drain fuel sump

**Right main gear**

Wheel fairing  
Tire condition, pressure (2,5 bar),  
position mark  
Brake, hydraulic line

**Nose section**

OAT sensor  
Propeller surface  
Spinner  
Cowling, Air inlets (3)

**Nose gear**

Wheel fairing  
Tire condition, pressure (2,0 bar),  
position mark

**Engine bay**

Engine oil level (min 5 qts)  
Drain fuel strainer

Chocks removed  
Towbar removed

**CHECK BEFORE ENGINE START**

1	Preflight check .....	COMPLETED	1
2	Baggage and tow bar .....	SECURED	2
3	Parking brake .....	SET	3
4	Mixture .....	IDLE CUT OFF	4
5	Throttle .....	CLOSED	5
6	Carburetor heat .....	OFF (FWD)	6
7	Electric master .....	OFF	7
8	Avionic master .....	OFF	8
9	Essential bus .....	OFF	9
10	Alternate static .....	CLOSED	10
11	All electrics .....	OFF	11
12	Horizon emergency switch .....	OFF / GUARDED	12
13	ELT .....	ARMED	13
14	Circuit breakers .....	CHECKED IN	14
15	Flap selector .....	UP	15
16	Pitot heat .....	OFF	16
17	Electric fuel pump .....	OFF	17
18	Electric Master .....	ON (check avionic fan noise)	18
19	Rudder pedals .....	ADJUSTED	19
20	Passengers .....	INSTRUCTED	20
21	Seat belts .....	FASTENED	21
22	Rear door .....	CLOSED and LATCHED	22
23	Front canopy .....	POS 1 or 2	23
24	G1000 .....	POWERED, ACKNOWLEDGED	24
25	Fuel quantity .....	CHECKED	25
26	Fuel selector .....	FULL TANK	26
27	MFD .....	ENGINE – SYSTEM	27
28	Fuel Quantity .....	RESET/SET if requ.	28
29	Total time in service .....	NOTED	29
30	MFD .....	ENGINE – DEFAULT	30
31	ACL (strobe) .....	ON	31
32	Propeller area .....	CLEAR	32

End of Checklist

**ENGINE START PROCEDURE: next page**

**ENGINE START PROCEDURE**

*Mixture* ..... FULL RICH  
*Electric fuel pump*..... ON  
*Throttle*..... ¼ OPEN  
**Cold engine:** *Prime*..... 1 – 4 seconds  
*Starter*..... ENGAGE  
*Oil pressure*..... CHECK GREEN RANGE  
*Throttle*..... 1000 RPM  
*Voltage, Electrical load*..... CHECK INDICATION  
*Annunciations / Eng. Instr.* ..... CHECK  
*Electric fuel pump*..... OFF

**CHECK AFTER ENGINE START**

1	Oil pressure .....	CHECKED	1
2	Fuel selector .....	SWITCH TANKS	2
3	Throttle .....	1500 RPM for 1 minute	3
4	Pitot heat ....	ON, annunciation + Amps checked	4
5	Pitot heat .....	OFF	5
6	Avionics master .....	ON	6

**FMS SETUP**

*I* nitialize profile (AUX 4, MAP, MFD FPL, PFD FPL)  
*F* light plan  
*R* adios (COM, NAV, ADF, DME, CDI, BRG ½)  
*P* erformance (speed bugs)

7	FMS setup .....	COMPLETED	7
---	-----------------	-----------	---

**AUTOPILOT TEST**

DISCONN press, check electric trim not working  
 AP ON, check overpowering servos  
 DISCONN press, check AP off

8	Autopilot test .....	COMPLETED	8
9	Flood light .....	CHECKED, ON as required	9
10	Position lights.....	ON as required	10
11	Flaps.....	FULL TRAVEL, THEN T/O	11
12	Altimeters (3) .....	SET + COMPARED	12
13	Transponder .....	CODE / MODE CHECKED	13
14	Parking brake.....	RELEASED	14

End of Checklist

**DURING TAXI**

Check brakes  
 Check flight instruments

**BEFORE TAKE OFF CHECK**

1	Parking brake.....	SET	1
2	Seat belts .....	FASTENED	2
3	Rear door .....	CLOSED + LATCHED	3
4	Front canopy .....	CLOSED + LATCHED	4
5	Door warning light .....	OFF	5
6	Engine instruments green range .....	CHECKED	6
7	Mixture .....	RICH or as required	7

**RUN UP**

Throttle..... 1800 RPM  
 Magnetos .....(max 175/50) CHECKED  
 Circuit breakers, voltage..... RECHECKED  
 Carburetor heat ..... CHECKED  
 Throttle..... IDLE

8	Amperemeter .....	CHECKED	8
9	Electric elevator trim .....	CHECKED, T/O SET	9
10	Flaps.....	CHECKED T/O	10
11	Flight controls .....	CHECKED	11
12	Fuel selector .....	FULLEST TANK	12

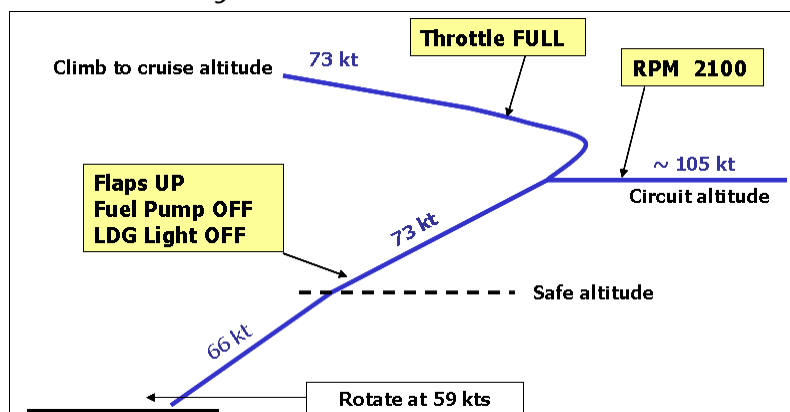
When cleared for Line Up:

13	Electric fuel pump .....	ON	13
14	Pitot heat .....	AS REQUIRED	14
15	Transponder .....	CODE / MODE CHECKED	15
16	Parking brake.....	RELEASED	16

End of Checklist

**LINE UP PROCEDURE**

Landing light..... ON  
 Approach sector..... CLEAR  
 Runway..... IDENTIFIED



**CLIMB TO CRUISE CHECK**

1	Flaps.....	CHECKED UP	1
2	Electric fuel pump.....	CHECKED OFF	2
3	Landing light .....	CHECKED OFF	3

End of Checklist

**PERIODICALLY DURING CRUISE***Fuel Radio Engine Direction Altitude*

Maximum fuel unbalance:

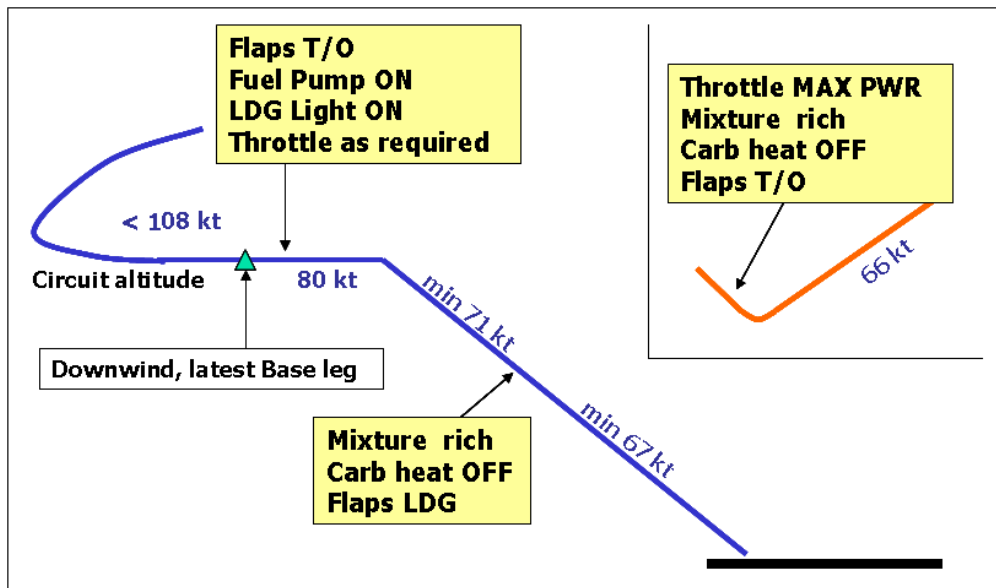
Standard tank: 10 USG, Long range tank: 8 USG

**DESCENT / APPROACH CHECK**

1	Landing data .....	RECEIVED	1
2	Altimeters (3) .....	SET	2
3	COM / NAV / FMS .....	SET	3
4	Seatbelts .....	FASTENED	4
5	Fuel selector .....	FULLER TANK	5
6	Mixture .....	AS REQUIRED	6
7	Carburetor heat .....	ON	7

End of Checklist

**BEFORE LANDING PROCEDURE***Downwind, latest base leg:**Flaps ..... T/O**Electric fuel pump..... ON**Landing light..... ON**On final:**Mixture ..... RICH**Carburetor heat ..... OFF**Flaps ..... LDG***GO AROUND PROCEDURE***Power (Throttle, Mixture, Carburetor heat) ..... MAX**Flaps ..... T/O**Continue with take-off profile*



## AFTER LANDING CHECK

1	Flaps.....	UP	1
2	Pitot heat .....	OFF	2
3	Electric fuel pump .....	OFF	3
4	Carburetor heat .....	OFF	4
5	Landing/Taxi light .....	AS REQUIRED	5

End of Checklist

## PARKING CHECK

1	Parking brake.....	SET	1
2	Engine instruments .....	CHECKED	2
3	Engine / System page TTL TIME IN SVC NOTED		3
4	ELT .....	CHECK not activated	4
5	Avionic master .....	OFF	5
6	Electrical consumers except ACL (strobe) ...	OFF	6
7	Throttle .....	1000 RPM	7
8	Ignition .....	GROUNDING CHECK	8
9	Mixture .....	IDLE CUT OFF	9
10	Ignition .....	OFF	10
11	ACL (strobe) .....	OFF	11
12	Electric Master.....	OFF	12
13	Interior light .....	CHECKED OFF	13
14	Start key .....	REMOVED	14

End of Checklist

OPERATING SPEEDS KIAS			
	850 kg	1000 kg	1150 kg
Best gliding angle (Flaps UP)	60	68	73
Best angle of climb ( $V_X$ )			
Best rate of climb ( $V_Y$ )	54	60	66
Cruising climb speed	60	68	73
Rotating speed	49	55	59
Max. flap speed ( $V_{FE}$ ) T/O	108		
Max. flap speed ( $V_{FE}$ ) LDG	91		
Landing speed Flaps UP	60	68	73
Landing speed Flaps LDG	58	63	71
Stalling speed ( $V_{S0}$ ) LDG	42	< -980kg->	49
Stalling speed ( $V_S$ ) T/O	44	< -980kg->	51
Stalling speed ( $V_S$ ) clean	47	< -980kg->	52
Max. cruising speed ( $V_{NO}$ )	129		
Never exceed speed ( $V_{NE}$ )	178		
Manoeuvring speed ( $V_A$ )	94	< -980kg->	108
Max. turbulence speed	129		

Weights	
Max. TKOF weight	1150 kg
Empty weight	795 kg
Max. LDG weight	1150 kg
Full tanks (standard)	107 kg
Full tanks (long range)	132 kg
Max. baggage in front	45 kg
Max. baggage in rear	18 kg

All data for ISA + 15								
Press. Alt.	FOT *)		85%		75%		65%	
	RPM	TAS	RPM	TAS	RPM	TAS	RPM	TAS
	FF Pwr	FF Econ	FF Pwr	FF Econ	FF Pwr	FF Econ	FF Pwr	FF Econ
MSL	2700	140	2750	130	2430	120	2280	109
	14.5	13.2	13.1	11.8	11.9	10.5	10.7	9.2
2000	2700	140	2650	136	2510	126	2360	115
	14.2	12.8	13.2	11.9	12.0	10.6	10.7	9.3
4000	2700	140	2700	140	2580	131	2440	121
	13.7	12.2	13.5	12.1	12.1	10.7	10.7	9.4
6000	2700	139	-	-	2660	136	2510	125
	13.0	11.6	-	-	12.2	10.8	10.7	9.5
8000	2690	138	-	-	2690	138	2570	129
	12.2	10.7	-	-	12.3	10.8	10.8	9.7
10000	2690	137	-	-	-	-	2610	131
	11.1	9.8	-	-	-	-	10.8	9.7
*) Full Open Throttle unless limited by max. RPM								

# EMERGENCY + ABNORMAL CHECKLIST

For conditions to use this  
Emergency + Abnormal Checklist  
see page 1 of the Normal Checklist.

All such conditions are fully  
applicable also for this checklist.



## G1000 WARNINGS

OIL PRES LO	Pg. 2	Oil pressure low (red range)
ALTERNATOR	Pg. 3	Alternator fail
STARTER ENGD	Pg. 3	Starter not disengaging
DOOR OPEN	Pg. 3	Unlocked doors

*For other parameters "out of green range" see Abnormal Checklist*

*Abnormal Checklist starts at page 9*

**Emergency landing** ..... page 2

### **Engine**

Rough engine and/or power loss ..... page 4

Loss of RPM ..... page 4

Windmill engine start ..... page 5

Powered engine start ..... page 5

### **Electric System**

Total electric fail ..... page 4

### **Smoke and Fire**

Engine fire in flight ..... page 6

Engine / carburetor fire on ground ..... page 6

Electric fire / smoke in flight ..... page 7

Electric fire / smoke on ground ..... page 7

### **Other Emergencies**

Suspicion of carbon monoxide ..... page 8

Unintentional flight into icing ..... page 8

Landing with defective main gear tire ..... page 8

Landing with defective brakes ..... page 8

**EMERGENCY LANDING**

- |   |                          |               |   |
|---|--------------------------|---------------|---|
| 1 | Airspeed.....            | 73/68/60 KIAS | 1 |
| 2 | ATC .....                | INFORM        | 2 |
| 3 | Fuel tank selector ..... | OFF           | 3 |
|   | On final:                |               |   |
| 4 | Flaps .....              | LDG           | 4 |
| 5 | Ignition .....           | OFF           | 5 |
| 6 | Master switch.....       | OFF           | 6 |

**OIL PRES LO****OIL (OP) PRESSURE LOW**

- |   |                                                                             |               |   |
|---|-----------------------------------------------------------------------------|---------------|---|
| 1 | Oil pressure ( <b>OP</b> ) .....                                            | CHECK         | 1 |
| 2 | Oil temperature ( <b>OT</b> ) .....                                         | CHECK         | 2 |
| 3 | Cylinder head temperature ( <b>CHT</b> ).....                               | CHECK         | 3 |
|   | • <b>OP</b> indication below green<br>and<br><b>OT</b> normal               |               |   |
| 4 | <b>OT</b> and <b>CHT</b> .....                                              | MONITOR       | 4 |
|   | • <b>OP</b> indication below green<br>and<br><b>OT</b> or <b>CHT</b> rising |               |   |
| 5 | Engine power .....                                                          | REDUCE TO MIN | 5 |
|   | Land ASAP,<br>be prepared for Emergency Landing                             |               |   |
|   | • <b>OP</b> near zero, vibration, loss of oil,<br>smoke                     |               |   |
| 6 | Mechanical failure.....                                                     | SUSPECT       | 6 |
| 7 | Engine .....                                                                | SHUT DOWN     | 7 |
|   | Emergency landing                                                           |               |   |

**ALTERNATOR****ALTERNATOR FAIL**

- 1 Circuit breakers..... CHECK 1
- 2 Master switch (ALT) ..... OFF, then ON 2
 

If alternator does not reset:
- 3 Essential bus ..... ON 3
- 4 Unnecessary equipment ..... OFF 4
 

Land within 30 minutes

If PFD attitude information lost:
- 5 Horizon emergency switch ..... ON 5

**STARTER ENGD****STARTER NOT DISENGAGING**

- 1 Throttle..... IDLE 1
- 2 Mixture ..... IDLE CUT OFF 2
- 3 Ignition..... OFF 3
- 4 Master switch..... OFF 4

**DOOR OPEN****UNLOCKED DOORS**

- 1 Airspeed..... REDUCE 1
- 2 Canopy and rear door .....CHECK visually 2

If unlocked:

Aispeed below 140 KIAS, land ASAP

***Do not try to lock the rear door in flight***

**ROUGH ENGINE AND/OR POWER LOSS**

- |   |                            |                      |   |
|---|----------------------------|----------------------|---|
| 1 | Airspeed.....              | 73/68/60 KIAS        | 1 |
| 2 | Electrical fuel pump ..... | ON                   | 2 |
| 3 | Fuel tank selector .....   | CHECK                | 3 |
| 4 | Engine instruments.....    | CHECK                | 4 |
| 5 | Throttle.....              | CHECK                | 5 |
| 6 | Mixture .....              | SET                  | 6 |
| 7 | Carburetor heat .....      | ON                   | 7 |
| 8 | Ignition switch .....      | BOTH                 | 8 |
| 9 | Throttle / Mixture .....   | TRY VARIOUS SETTINGS | 9 |

If no success and insufficient power:  
Land ASAP

**LOSS OF RPM**

- |   |                            |       |   |
|---|----------------------------|-------|---|
| 1 | Electrical fuel pump ..... | ON    | 1 |
| 2 | Fuel tank selector .....   | CHECK | 2 |
| 3 | Friction adjuster .....    | CHECK | 3 |

**TOTAL ELECTRIC FAIL**

- |                                                    |                                |                    |   |
|----------------------------------------------------|--------------------------------|--------------------|---|
| 1                                                  | Circuit breakers.....          | CHECK, PULL, RESET | 1 |
| 2                                                  | Essential bus .....            | ON                 | 2 |
| If no success:                                     |                                |                    |   |
| 3                                                  | Horizon emergency switch ..... | ON                 | 3 |
| 4                                                  | Flood light, if necessary..... | ON                 | 4 |
| 5                                                  | Power .....                    | SET                | 5 |
| according power lever position and/or engine noise |                                |                    |   |
| 6                                                  | Flaps .....                    | VERIFY POSITION    | 6 |

Land ASAP

**WINDMILL ENGINE START**

- |                |                            |                |   |
|----------------|----------------------------|----------------|---|
| 1              | Airspeed.....              | 73 - 130 KIAS  | 1 |
| 2              | Fuel tank selector .....   | FULLEST TANK   | 2 |
| 3              | Ignition .....             | BOTH           | 3 |
| 4              | Mixture .....              | CHECKED        | 4 |
| 5              | Electrical fuel pump ..... | ON             | 5 |
| 6              | Carburetor heat .....      | ON             | 6 |
| If no success: |                            |                |   |
| 7              | Mixture .....              | LEAN           | 7 |
| 8              | Mixture .....              | SLOWLY TO RICH | 8 |

**POWERED ENGINE START**

- |   |                            |              |   |
|---|----------------------------|--------------|---|
| 1 | Airspeed.....              | 70 - 80 KIAS | 1 |
| 2 | Electrical equipment ..... | OFF          | 2 |
| 3 | Avionic master .....       | OFF          | 3 |
| 4 | Master switch (BAT).....   | ON           | 4 |
| 5 | Mixture .....              | CHECKED      | 5 |
| 6 | Fuel tank selector .....   | CHECKED      | 6 |
| 7 | Electric fuel pump.....    | ON           | 7 |
| 8 | Carburetor heat .....      | ON           | 8 |
| 9 | Ignition .....             | START        | 9 |

**ENGINE FIRE IN FLIGHT / AFTER TAKE OFF**

- |                       |                            |                      |    |
|-----------------------|----------------------------|----------------------|----|
| 1                     | Cabin heat.....            | OFF                  | 1  |
| 2                     | Emergency landing .....    | PREPARE              | 2  |
| 3                     | Airspeed.....              | 73/68/60 KIAS        | 3  |
| 4                     | ATC .....                  | INFORM               | 4  |
| 5                     | Canopy .....               | UNLATCH as necessary | 5  |
| When landing assured: |                            |                      |    |
| 6                     | Fuel tank selector .....   | OFF                  | 6  |
| 7                     | Throttle.....              | MAX PWR if possible  | 7  |
| 8                     | Electrical fuel pump ..... | OFF                  | 8  |
| 9                     | Master switch.....         | ON                   | 9  |
| 10                    | Emergency window.....      | OPEN if required     | 10 |
| On final:             |                            |                      |    |
| 11                    | Mixture .....              | IDLE CUT OFF         | 11 |
| 12                    | Flaps .....                | LDG                  | 12 |
| 13                    | Ignition.....              | OFF                  | 13 |
| 14                    | Master switch.....         | OFF                  | 14 |

**ENGINE/CARBURETOR FIRE**  
**ON GROUND WHEN STARTING**

- |                          |                          |                        |    |
|--------------------------|--------------------------|------------------------|----|
| 1                        | Starter.....             | CRANK                  | 1  |
| If engine fires:         |                          |                        |    |
| 2                        | Throttle.....            | 1800 RPM for 4 minutes | 2  |
| 3                        | Cabin heat.....          | OFF                    | 3  |
| If engine does not fire: |                          |                        |    |
| 4                        | Mixture .....            | IDLE CUT OFF           | 4  |
| 5                        | Throttle.....            | MAX POWER              | 5  |
| 6                        | Electric fuel pump.....  | OFF                    | 6  |
| 7                        | Fuel tank selector ..... | OFF                    | 7  |
| 8                        | Master switch.....       | OFF                    | 8  |
| When engine stopped:     |                          |                        |    |
| 9                        | Ignition .....           | OFF                    | 9  |
| 10                       | Canopy .....             | OPEN                   | 10 |

Evacuate

**ELECTRIC FIRE / SMOKE IN FLIGHT**

- |   |                                |                      |   |
|---|--------------------------------|----------------------|---|
| 1 | Horizon emergency switch ..... | ON                   | 1 |
| 2 | Canopy .....                   | UNLATCH as necessary | 2 |
| 3 | Master switch (ALT/BAT) .....  | OFF                  | 3 |
| 4 | Cabin heat.....                | OFF                  | 4 |
| 5 | Emergency window.....          | OPEN as necessary    | 5 |

Land ASAP

If electronics/avionics required: apply isolation  
procedure as follows

- |   |                          |    |   |
|---|--------------------------|----|---|
| 6 | Master switch (BAT)..... | ON | 6 |
| 7 | Essential bus .....      | ON | 7 |

If smoke decreases: Land ASAP

If smoke persists:

- |    |                                        |      |    |
|----|----------------------------------------|------|----|
| 8  | Master switch (ALT) .....              | ON   | 8  |
| 9  | Essential bus .....                    | OFF  | 9  |
| 10 | BATT and ESS TIE circuit breakers..... | PULL | 10 |

Land ASAP

**ELECTRIC FIRE / SMOKE ON GROUND**

- |   |                               |              |   |
|---|-------------------------------|--------------|---|
| 1 | Master switch (ALT/BAT) ..... | OFF          | 1 |
| 2 | Throttle.....                 | IDLE         | 2 |
| 3 | Mixture .....                 | IDLE CUT OFF | 3 |

When engine stopped:

- |   |               |      |   |
|---|---------------|------|---|
| 4 | Ignition..... | OFF  | 4 |
| 5 | Canopy .....  | OPEN | 5 |

Evacuate

**SUSPICION OF CARBON MONOXIDE**

- |   |                         |         |   |
|---|-------------------------|---------|---|
| 1 | Cabin heat.....         | OFF     | 1 |
| 2 | Ventilation.....        | OPEN    | 2 |
| 3 | Emergency windows ..... | OPEN    | 3 |
| 4 | Forward canopy .....    | UNLATCH | 4 |

**UNINTENTIONAL FLIGHT INTO ICING**

- |   |                              |                  |   |
|---|------------------------------|------------------|---|
| 1 | Pitot heat .....             | ON               | 1 |
| 2 | Cabin heat.....              | ON               | 2 |
| 3 | Cabin air distribution.....  | UP               | 3 |
| 4 | RPM.....                     | INCREASE         | 4 |
| 5 | Carburetor heat .....        | ON               | 5 |
| 6 | Emergency windows .....      | OPEN as required | 6 |
|   | Leave icing area, inform ATC |                  |   |
|   | When pitot heat fails:       |                  |   |
| 7 | Alternate static valve ..... | OPEN             | 7 |
| 8 | Emergency windows .....      | CLOSED           | 8 |

**LANDING WITH DEFECTIVE MAIN GEAR TIRE**

- |   |           |          |   |
|---|-----------|----------|---|
| 1 | ATC ..... | INFORMED | 1 |
|---|-----------|----------|---|

For landing:

- Land on RWY side with "good" tire
- Keep wing on "good" side low
- Support directional control with brake

**LANDING WITH DEFECTIVE BRAKES**

After touchdown (if necessary):

- |   |                          |              |   |
|---|--------------------------|--------------|---|
| 1 | Fuel tank selector ..... | OFF          | 1 |
| 2 | Mixture .....            | IDLE CUT OFF | 2 |
| 3 | Ignition .....           | OFF          | 3 |
| 4 | Master switch.....       | OFF          | 4 |

**G1000 CAUTION LIGHTS**

<b>PITOT OFF</b>	No procedure	<b>Pitot heating system OFF</b>
<b>PITOT FAIL</b>	Pg. 9	<b>Pitot heating system failed</b>
<b>L FUEL LOW</b>	No procedure	<b>Left tank fuel qty low (&lt; 3 USG)</b>
<b>R FUEL LOW</b>	No procedure	<b>Right tank fuel qty low (&lt; 3 USG)</b>
<b>LOW VOLTS</b>	Pg 9	<b>Bus voltage too low</b>

**Engine instrument indications outside of green range**

<i>OIL pressure low / high</i>	<i>.....page 10</i>
<i>OIL temperature high</i>	<i>.....page 10</i>
<i>CYLINDER Head Temp high / low</i>	<i>.....page 11</i>
<i>EXHAUST GAS Temp low</i>	<i>.....page 11</i>
<i>FUEL FLOW high</i>	<i>.....page 11</i>
<i>FUEL PRESSURE low</i>	<i>.....page 11</i>
<i>VOLT high (overvoltage)</i>	<i>.....page 11</i>

**PITOT FAIL****PITOT HEATING SYSTEM FAILED**

- check pitot heat ON
  - ❖ if in icing conditions
    - ⇒ expect failure of the pitot-static-system
    - ⇒ alternate static valve: OPEN
    - ⇒ leave area with icing conditions

**LOW VOLTS****BUS VOLTAGE TOO LOW**

*Remark: possible reasons are*  
*- malfunction of electrical supply*  
*- RPM too low*

- ❖ On ground
  - ⇒ Increase RPM to 1200
  - ⇒ Electrical equipment OFF
  - ⇒ Check Ammeter and voltmeter
    - ❖ If light still ON
      - ⇒ Terminate flight preparation
- ❖ In flight
  - ⇒ Switch off unnecessary electrical equipment
  - ⇒ Check Ammeter and voltmeter
    - ❖ If light still ON
      - ⇒ Apply "ALTERNATOR FAIL"-emergency procedure  
*(Emergency Checklist page 3)*

**OIL pressure low**

- Check **OIL PRES LO** warning light
  - ❖ **OIL PRES LO** warning light ON or flashing
    - ⇒ Apply "OIL PRES LO"-emergency procedure  
*(Emergency Checklist page 2)*
  - ❖ **OIL PRES LO** warning light OFF
    - ⇒ Check oil temperature and cylinder head temperature (CHT)
      - ❖ Oil temperature *and* CHT normal
        - ⇒ Monitor oil pressure warning light (suspect faulty oil pressure indication)
        - ⇒ Monitor oil temperature and cylinder head temperature
      - ❖ Oil temperature *or* CHT rising
        - ⇒ Reduce engine power to minimum
        - ⇒ Land ASAP
        - ⇒ Be prepared for engine failure and emergency landing
      - ❖ Oil pressure near zero, vibration, loss of oil, smoke
        - ⇒ Suspect mechanical failure in the engine
        - ⇒ Shut down engine immediately
        - ⇒ Perform emergency landing

**Oil pressure high**

- Check oil temperature
  - ❖ If oil temperature normal:
    - ⇒ suspect faulty oil pressure indication, continue flight

**Oil temperature high**

- Check oil pressure
  - ❖ If oil pressure low:
    - ⇒ Continue with OIL pressure LOW checklist  
*(Emergency Checklist page 2)*
  - ❖ If oil pressure in green range:
    - ⇒ Check cylinder head temperature
    - ⇒ Check mixture setting, enrich if necessary
    - ⇒ Reduce power, increase airspeed
    - ⇒ Land ASAP

**Cylinder head temperature (CHT) high**

- Enrich mixture
- Check oil pressure
  - ❖ If oil pressure low:
    - ⇒ Continue with abnormal checklist "Oil pressure low" (page 10)
  - ❖ If oil pressure in green range:
    - ⇒ Check mixture and enrich if necessary
    - ⇒ Reduce power, increase airspeed

**Cylinder head temperature (CHT) or EGT low**

- A very low reading for a single cylinder may be the result of a loose sensor

**FUEL FLOW high**

- Check fuel pressure
  - ❖ If fuel pressure low suspect fuel leak:
    - ⇒ Check and monitor fuel quantity
    - ⇒ Check power setting
    - ⇒ Land ASAP

*Consider reduced range and endurance due to possible loss of fuel*

**FUEL PRESSURE low**

- Electric fuel pump ON
- Check fuel quantity
- Check fuel tank selector
- Check and adjust mixture if necessary
- Land ASAP

*Be prepared for engine failure*

**OVER VOLTAGE**

- Essential bus ON
- Master switch (ALT) OFF
- Master switch (BAT) ON
- Switch OFF unnecessary equipment
- Land ASAP