Checklist for Diamond DA62

Edition #: **4.0** Edition date: **05.10.2021**

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 # 4.0 are on page 2 of this document

Checklist DA62 - LEP

Page	Following Edition (or any higher) is valid	Date
Section : Normal Checklist		
1	1	01.12.2015
2	1	01.12.2015
3	1	01.12.2015
4	1.1	01.03.2016
5	1.4	15.04.2017
6	1.1	01.03.2016
7	1	01.12.2015
8	1.1	01.03.2016
9	1.3	15.03.2017
10	1.2	10.09.2016
11	2	15.12.2017

Section: Emergency Checklist		
1	3.2	15.05.2020
2	2	15.12.2017
3	2	15.12.2017
4	2	15.12.2017
5	2	15.12.2017
6	2	15.12.2017
7	2	15.12.2017
8	2	15.12.2017
9	2	15.12.2017
10	2.1	15.03.2018
11	2	15.12.2017
12	2	15.12.2017
13	2	15.12.2017
14	2	15.12.2017
15	2	15.12.2017
Section: Abnormal Checklist		
16	3.3	16.07.2021
17	4.0	05.10.2021
18	2	15.12.2017
19	3.3	16.07.2021
20	3.3	16.07.2021
21	2.1	15.03.2018
22	3.3	16.07.2021

Comments explaining Edition # 2 Legacy

Normal Procedures:
Page 11:
Maximum ZFW updated

Emergency Procedures:
Pages rearranged and renumbered

Major changes:

Page 6: L/R STARTER
Pages 7/8: Engine Fire
Page 10: Engine Restart

Abnormal Procedures:
Pages renumbered

Comments explaining Edition # 2.1 Legacy

Normal Procedures:
No change

Emergency Procedures:
Page 10: Engine Restart updated

Abnormal Procedures:
Pages 17, 19, 21: editorial correction

Comments explaining Edition # 3.1 Legacy

Normal Procedures:
Editorial change

Comments explaining Edition # 3.2 Legacy

Emergency & Abnormal Procedures – Editorial change / blank page deleted

Comments explaining Edition # 3.2 Legacy

Emergency & Abnormal Procedures – Editorial change / blank page deleted

Comments explaining Edition # 3.3 Legacy

Abnormal Procedures
Page referrals AUX Tank Empty
Page referrals L/R VOLTS LOW changed
Page referrals Volts low changes

Comments explaining Edition # 4.0 Legacy

Abnormal Procedures
ECU Fail – added ” ON Ground” and ”IN AIR” p.17

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 DA42 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 Flight Training and/or Diamond Aircraft Industries 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 24 (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.

Attention!
For use of fuel additives see AFM

* if ice protection is installed
** if AUX tanks are installed
*** if RACC is installed

PREFLIGHT INTERIOR + EXTERIOR.

1 Check airplane documents
2 Remove pitot cover
3 Check interior for foreign or loose objects
4 Check circuit breakers
5 Gear selector CHECKED DOWN
6 Electric Master ON
Check battery voltage
7 Gear 3 greens CHECKED
8 Check fuel quantity + temp
9 **AUX PUMPS (2) ON
if AUX FUEL E caution ON:
AUX tank(s) empty
AUX PUMPS (2) OFF
10 External lights ON
11 Parking Brake SET
12 Pitot heat ON
13 * Check de-ice fluid quantity
14 * Select de-ice pump 1
15 * De-ice HIGH/MAX
16 * Check DEIC PRES LO+HI out
17 * Select de-ice pump 2
18 * Check DEIC PRES LO+HI out
19 * Ice lights ON
20 * Check de-ice function
21 Check external lights
22 Check stall warning
23 Check pitot tube heat
24 Pitot heat OFF
25 External lights OFF
26 * De-ice, ice lights OFF
27 Electric Master OFF

PREFLIGHT EXTERIOR

LH pilot door, windshield

Left main gear

Strut (min 5cm bare piston) & downlock
Tire condition, position mark
Brake, hydraulic line
Gear door & linkage

Left engine nacelle

Drain gascolator
2 air inlets / 2 air outlets
Spinner, propeller
Gearbox oil level
Engine oil level
Cowling
Nacelle underside
Venting pipe
Exhaust
** Check AUX tank full ?

Left wing

Wing leading edge, top- and bottom surface
Tank drain
Stall warning
Tank air vent
Fuel filler cap
Pitot probe (cover removed)
Vortex generators (10)
Wing tip, position light
Static discharger
Aileron (freedom of movement, linkage covers, 4 hinge pins)
Wing flap (linkage covers, 10 hinge pins)
** AUX pump cooler air in- & outlet
** AUX tank vents
** Drain AUX tank

Left fuselage

Step
Rear cabin door
Rear window
Fuselage left side
Static source
Antennas
*** RACC air outlet

Tail

Elevator & rudder (freedom of movement, hinges)
Elevator & rudder trim - tabs
Static dischargers
Tail skid, tie down

Right fuselage

Fuselage right side
Static source
Rear window
*** RACC air inlet
Step

Right wing

** AUX pump cooler air in- & outlet
** AUX tank vents
** Drain AUX tank
Wing flap (linkage covers, 10 hinge pins)
Aileron (freedom of movement, linkage covers, 4 hinge pins)
Static discharger
Wing tip, position light
Vortex generators (10)
Wing leading edge, top- and bottom surface
Fuel filler cap
Tank air vent
Tank drain
Cabin air vent inlet

RH pilot door, windshield

Right engine nacelle

** Check AUX tank full ?
2 air inlets / 2 air outlets
Spinner, propeller
Gearbox oil level
Engine oil level
Cowling
Nacelle underside
Venting pipe
Exhaust
Drain gascolator

Ventilation air inlet

Right main gear

Strut (min 5cm bare piston) & downlock
Tire condition, position mark
Brake, hydraulic line
Gear door & linkage

Nose section

L + R front baggage door locked
OAT sensor
EPU connection
Landing / Taxi light
With WX radar: nose cone surface, lightning protection strips and attachment screws
*De-ice fluid tank cover

Nose gear

Strut (min 10cm bare piston)
Gear door & linkage
Tire condition, position mark

Chocks removed
Tow bar removed

CHECK BEFORE ENGINE START

1	Preflight check	COMPLETED	1
2	Baggage and tow bar	SECURED	2
3	**AUX PUMPS (2)	OFF	3
4	*** AUX PWR switch	OFF	4
5	Fuel selectors (2)	ON, safety guard closed	5
6	Power levers (2)	IDLE	6
7	Parking brake	SET	7
8	Alternate Air	CLOSED	8
9	Manual gear extension handle	PUSHED	9
10	Gear selector	DOWN	10
11	Pitot heat	OFF	11
12	Avionic master	OFF	12
13	Electric master	OFF	13
14	Fuel pumps (2)	OFF	14
15	Engine masters (2)	OFF	15
16	Alternate static	CLOSED	16
17	Alternators (2)	**ON**	17
18	VOTER switches (2)	AUTO	18
19	* Anti Ice	OFF/OFF	19
20	All light switches	OFF	20
21	Circuit breakers	CHECKED IN	21
22	ELT	ARMED	22
23	Flap selector	UP	23

If starting LH engine or using RACC with external power:

a	Prop area	CHECK CLEAR	a
b	External power	CONNECT	b
c	*** ***Only at OAT above 10°C*** RACC	ON	c

24	Electric master	ON	24
25	Rudder pedals	ADJUSTED	25
26	Flight controls	CHECKED	26
27	Flaps full travel -->LDG -->UP	CHECKED	27
28	Trims	CHECKED	28
29	Gear warning + lights, fire detector	TEST	29

Checklist continued next page

CHECK BEFORE ENGINE START continued

30	* De-ice ANNUN TEST ..... ON	30
31	* DEICE LVL LO caution ... CHECKED ON if applic.	31
32	Passengers ..... INSTRUCTED	32
33	Safety harnesses ..... FASTENED	33
34	All doors ..... CLOSED	34
35	G1000 ..... POWERED, ACKNOWLEDGED	35
36	MFD ..... EIS – FUEL	36
37	Fuel Quantity ..... CHECKED, RESET/SET if requ.	37
38	Fuel temperature ..... CHECKED	38
39	Total time in service ..... NOTED	39
40	MFD ..... EIS – SYSTEM	40
41	* DEIC PRESS LO caution ..... CHECKED ON	41
42	* De-ice ANNUN TEST ..... OFF	42
43	Power levers (2) ..... IDLE	43
44	ACL (strobe) ..... ON	44
45	*** RACC ..... OFF	45

End of Checklist

ENGINE START PROCEDURE

Normal sequence: first start LH engine

Propeller area ..... CLEAR
Engine Master ..... ON
Annunciations / Eng.Instr. ..... CHECKED
Glow indication ..... OFF
Start button ..... PRESS
Oil pressure ..... OUTSIDE RED within 3 sec
Voltage, Electrical load ..... CHECK INDICATION
Annunciations / Eng.Instr. ..... CHECK

If external power was used:

External power ..... DISCONNECT

Start RH engine, procedure as above

CHECK AFTER ENGINE START

1	Oil pressure.....CHECKED	1
2	RPM 710 +/- 30 .....CHECKED	2
3	Fuel selectors (2) .....X-FEED	3
4	Pitot heat..... ON, annunciation + Amps checked	4
5	Pitot heat.....OFF	5
6	Avionics master .....ON	6
7	WX radar (if installed).....SBY	7
8	*** ***Only at OAT above 10°C*** AUX PWR switch .....ON	8
9	*** RACC.....ON	9

FMS SETUP

I *nitialize profile (AUX 4, MAP)*
F *light plan*
R *adios (COM, NAV, ADF, DME, CDI, BRG ½)*
P *erformance (speed bugs; Flight ID if applicable)*

10	FMS setup..... COMPLETED	10

AUTOPILOT TEST

DISCONN press, check electric trim not working
AP ON, check annunciations and FD
DISCONN press, check AP off
GA button press, check FD commands climb
FD off

11	Autopilot test..... COMPLETED	11
12	Flood light.....CHECKED, ON as required	12
13	Position lights..... ON as required	13
14	Fuel Selectors (2).....ON	14
15	Altimeters (2).....SET	15
16	Standby attitude module.....CHECKED	16
17	Transponder..... MODE / CODE CHECKED	17
18	Engine temperatures .....CHECKED	18
19	Parking brake .....RELEASED	19

Max power 50% until engine temperatures in green range

End of Checklist

DURING TAXI

Check Brakes
Check nose wheel steering
Check flight instruments

BEFORE TAKE OFF CHECK

1	Parking brake ..... SET	1
2	Safety harnesses..... FASTENED	2
3	Adjustable backrests..... UPRIGHT	3
4	Pilot and passenger doors..... CLOSED, LOCKED	4
5	Front baggage doors..... CHECKED CLOSED	5
6	Door warning annunciations..... OFF	6
7	Circuit breakers ..... CHECKED	7
8	Electric elevator trim ..... CHECKED, T/O SET	8
9	Fuel selectors (2) ..... CHECKED ON	9
10	Rudder trim..... AS REQUIRED	10
11	Flaps ..... Non-std TKOF: UP Standard TKOF: T/O	11
12	Flight controls..... CHECKED	12
13	Power levers (2) ..... IDLE	13
14	MFD ..... EIS – SYSTEM	14
15	Engine instruments ..... CHECKED	15

Engine temperatures must be in green range before performing ECU test. (For gearbox min.38° recommended). For warm up max power 50%.

16	VOTER switches (2)..... A, AUTO, B, AUTO	16

ECU TEST

ECU test buttons (2) ..... press and hold
"L/R ECU A/B fail"..... ON
Props cycling
"L/R ECU A/B fail"..... OFF
ECU test button.....release

17	ECU test (2) ..... PERFORMED	17
18	Pitot heat..... AS REQUIRED	18
19	* Ice protection ..... AS REQUIRED	29
20	Transponder..... MODE / CODE CHECKED	20
21	Fuel pumps (2) ..... ON	21
22	MFD ..... EIS – DEFAULT	22
23	Parking brake ..... RELEASED	23

End of Checklist

LINE UP PROCEDURE

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

Available power check (see pg.10)..... PERFORMED

AFTER TAKE-OFF PROCEDURE

Brakes ..... APPLY
Gear ..... UP
Alternate air: OPEN in rain, snow, visible moisture
At safe altitude: Flaps ..... UP
Climb power 95%

CLIMB TO CRUISE CHECK

1	Gear	CHECKED UP	1
2	Flaps	CHECKED UP	2
3	Fuel pumps (2)	OFF	3
4	Climb power	SET	4
5	Alternate air	AS REQUIRED	5
6	Landing light	OFF	6

End of Checklist

DESCENT / APPROACH CHECK

1	Landing data	RECEIVED	1
2	Altimeters (2)	SET	2
3	COM / NAV / FMS	SET	3
4	Safety harnesses	FASTENED	4
5	Adjustable backrests	UPRIGHT	5
6	Parking brake	CHECKED RELEASED	6
7	Rudder trim	AS REQUIRED	7
8	Gear warning + lights	TEST	8
9	Landing light	ON	9

❖ ***Normal Approach:***

10	Fuel selectors (2)	CHECKED ON	10
11	Fuel pumps (2)	ON	11

End of Checklist

1 engine out Approach:

10	Fuel selector (good engine)	CHECKED ON	10
11	Fuel pumps (good engine)	ON	11

End of Checklist

FINAL CHECK

1	Flaps	LDG	1
2	Gear	3 GREENS CHECKED	2
3	Rudder trim	NEUTRAL	3

Ensure that the parking brake lever is in the released position!

GO AROUND PROCEDURE

Power .....MAX
Flaps.....T/O
Positive rate of climb:
Gear ..... UP
Flaps..... UP
Continue with take-off profile
At safe altitude:
Climb power 95%

AFTER LANDING CHECK

When clear of runway

1	Alternate air	CLOSED	1
2	Pitot heat	OFF	2
3	Flaps	UP	3
4	Fuel pumps (2)	OFF	4
5	* De-ice systems	OFF	5
6	Landing/Taxi light	AS REQUIRED	6

End of Checklist

PARKING CHECK

1	Parking brake	SET	1
2	Power levers (2)	max 10% for 1 min.	2
3	ELT	CHECK not activated	3
4	Engine / System page.....	CHECKED	4
5	Engine / Fuel page	TTL TIME IN SVC NOTED	5
6	Avionic master.....	OFF	6
7	Electrical consumers except ACL (strobe)	OFF	7
8	Engine Masters (2)	OFF	8
9	ACL (strobe).....	OFF	9

When engine indications x-ed out red:

10	Electric Master	OFF	10
11	Interior light.....	CHECKED OFF	11

End of Checklist

SECURING THE AIRCRAFT

Release parking brake, use chocks.
Cover the pitot probe.
Attach tie down ropes to mooring points.

All masses and speeds are for ACFT with MTOM 1999 kg

STALLING SPEEDS KIAS for 1999 kg	
(V_{S0}) Flaps LDG, gear down	64
(V_S) Flaps T/O, gear down	69
(V_{S1}) clean, gear up	70
In Ice: + 1-4 KIAS	

OPERATING SPEEDS KIAS for MTOM 1999 kg		
	Flaps T/O	Flaps UP
Min. control speed (V_{MCA})	70	76
Rotation speed	76	80
Best angle of climb (V_X)	83	--
Best rate of climb (V_Y) and V_{50}	83	87
Cruise climb	93	
Best rate of climb 1-eng. (V_{YSE})	87 in ice: 89	
Operating speed in ice	89 – 154 KIAS (174 KTAS)	
Max. flap speed (V_{FE}) Flaps T/O	136	
Max. flap speed (V_{FE}) Flaps LDG	119	
Max. LG extension (V_{LOE})	205	
Max. LG extended (V_{LE})	205	
Max. LG retraction (V_{LOR})	162	
Approach V_{REF} Flaps UP	91 in ice: 97	
Approach V_{REF} Flaps T/O	88 in ice: 90	
Approach V_{REF} Flaps LDG	84 in ice: prohib.	
Min. Go-around speed Flaps T/O	88	
Max. cruising speed (V_{NO})	162	
Never exceed speed (V_{NE})	205	

up to	1800 kg	1900 kg	1999 kg
Manoeuvring speed (V_O)	120	128	131

MASS (kg)		
Max. TKOF mass	1999	
Max ZF mass	1999	
Max. LDG mass	1999	
Max. baggage in NOSE LH, RH	30, 30	
Max. baggage in CABIN A, B	6, 6	120
Max. baggage in CABIN C, D	68, 40	

Available Power Check:

10 sec. power MAX, RPM 2250 – 2300, min. load acc. table below

	OAT								
Altitude [ft]	-35°C	-20°C	-10°C	0°C	10°C	20°C	30°C	40°C	50°C
0	99%					97%	96%	93%	91%
2000						97%	96%	93%	-----
4000						97%	96%	93%	-----
6000						97%	96%	93%	-----
8000			98%	98%	98%	96%	95%	92%	-----
10000	98%	97%	97%	95%	94%	92%	89%	-----	-----

All masses and speeds are for ACFT with MTOM 2300 kg

STALLING SPEEDS KIAS for 2300 kg	
(V_{S0}) Flaps LDG, gear down	69
(V_S) Flaps T/O, gear down	71
(V_{S1}) clean, gear up	73
In Ice: + 3-5 KIAS	

OPERATING SPEEDS: KIAS for mass up to 1999 / above 1999 kg

	Flaps T/O	Flaps UP
Min. control speed (V_{MCA})	70	76
Rotation speed	76/78	80/80
Best angle of climb (V_X) and V_{50}	83/86	--
Best rate of climb (V_Y)	83/86	87/89
Cruise climb	93/96	
Best rate of climb 1-eng. (V_{YSE})	87/89 in ice: 89 / 97	
Operating speed in ice	96 – 154 KIAS (174 KTAS)	
Max. flap speed (V_{FE}) Flaps T/O	136	
Max. flap speed (V_{FE}) Flaps LDG	119	
Max. LG extension (V_{LOE})	205	
Max. LG extended (V_{LE})	205	
Max. LG retraction (V_{LOR})	162	
Approach V_{REF} Flaps UP	91/95 in ice: 97/101	
Approach V_{REF} Flaps T/O	88/91 in ice: 90/96	
Approach V_{REF} Flaps LDG	84/89 in ice: prohib.	
Min. Go-around speed Flaps T/O	91	
Max. cruising speed (V_{NO})	162	
Never exceed speed (V_{NE})	205	

up to	1800 kg	1900 kg	1999 kg	2100 kg	2200 kg	2300 kg
Manoeuvring speed (V_O)	120	128	131	135	138	141

MASS (kg)		
Max. TKOF mass	2300	
Max ZF mass	2200	
Max. LDG mass	2300	
Max. baggage in NOSE LH, RH	30, 30	
Max. baggage in CABIN A, B	6, 6	120
Max. baggage in CABIN C, D	68, 40	
Max. baggage in CABIN E, F	40, 6	7-seater

Available Power Check:

10 sec. power MAX, RPM 2250 – 2300, min. load acc. table below

	OAT								
Altitude [ft]	-35°C	-20°C	-10°C	0°C	10°C	20°C	30°C	40°C	50°C
0	99%					97%	96%	93%	91%
2000						97%	96%	93%	-----
4000						97%	96%	93%	-----
6000						97%	96%	93%	-----
8000			98%	98%	98%	96%	95%	92%	-----
10000	98%	97%	97%	95%	94%	92%	89%	-----	-----

FMS Intitialization – AUX 4 page
Recommended and compulsory settings

TIME FORMAT	UTC
NAV ANGLE	MAGNETIC
DIS. SPD	NAUTICAL
ALT. VS	FEET
TEMP	CELSIUS
FUEL	GALLONS
POSITION	HDDD°MM'SS.S''
AIRSPACE ALERTS	As desired
ARRIVAL ALERT	As desired
VOICE	As desired

MFD DATA BAR FIELDS	1 GS
	2 DIS
	3 ETE
	4 TRK
GPS CDI	
SELECTED	AUTO
COM CHANNEL SPACING	25,0 KHZ or 8,33 KHZ
NEAREST APT	
RWY SURFACE	As desired
MIN LENGTH	As desired

Compulsory:

ARINC 424 Distance Coding:

A	B	C	D	E
1	2	3	4	5
F	G	H	I	J
6	7	8	9	10
K	L	M	N	O
11	12	13	14	15
P	Q	R	S	T
16	17	18	19	20
U	V	W	X	Y
21	22	23	24	25

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.

Abnormal Checklist starts at page 16

ENGINES OUT LANDING

1 Mayday call .....CONSIDER 1

2 Engine masters (2) ..... OFF 2

3 Alternators (2)..... OFF 3

4 Fuel pumps (2) ..... OFF 4

5 Fuel selectors (2) ..... OFF 5

6 Avionic master..... OFF 6

7 Safety harnesses .....FASTENED and TIGHT 7

When sure of making landing area:

8 Flaps .....T/O or LDG, as required 8

Approach speed	up to 1999 kg	above 1999 kg
Flaps T/O	88 KIAS	91 KIAS
Flaps LDG	84 KIAS	89 KIAS

Before landing:

9 Flaps .....LDG 9

10 Power levers (2) .....IDLE 10

❖→ Gear UP landing

After touchdown:

11 Electric master ..... OFF 11

❖ Gear DOWN landing

11 Gear.....DOWN, 3 GREENS CHECKED 11

12 Electric master ..... OFF 12

DITCHING

1	Mayday call	CONSIDER	1
2	Heavy objects	SECURE	2
3	Landing Gear	UP	3

Heavy swell with light wind:	ditch parallel to the swell
Heavy wind:	ditch into the wind

4	Flaps	LDG	4
5	Final approach speed Vref	84/89 KIAS	5
6	Power	300FT/MIN rate of descent	6

Touchdown, in level attitude, avoid landing flare (height difficult to judge), airplane will float only a short time.

EVACUATE through doors

When outside inflate life vests (raft)

G1000 WARNINGS

L/R OIL PRES	Pg. 4	Oil pressure low (red range)
L/R OIL TEMP	Pg. 4	Oil temperature high (red range)
L/R GBOX TEMP	Pg. 5	Gearbox temperature high (red range)
L/R ENG TEMP	Pg. 5	Coolant temperature high (red range)
L/R FUEL TEMP	Pg. 5	Fuel temperature high (red range)
L/R FUEL PRESS	Pg. 6	Fuel pressure low
L/R ALTN AMPS	Pg. 6	L/R Alternator output high (red range)
L/R STARTER	Pg. 6	Starter not disengaging
L/R DOOR OPEN	Pg. 6	L/R door not closed and locked
REAR DOOR OPEN		Rear door not closed and locked
FWD DOOR OPEN		L/R baggage door door not closed and locked
L/R ENG FIRE	Pg. 7	Engine fire on ground, during take-off, in flight

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

L/R OIL PRES

OIL PRESSURE LOW

- Reduce power on affected engine
- Be prepared for loss of oil and an engine failure;
  land at nearest suitable airfield

L/R OIL TEMP

OIL TEMPERATURE HIGH

- Check oil pressure
  - If oil pressure too low (outside green range):
    - ⇒ Reduce power on affected engine
    - ⇒ Expect loss of engine oil
    - ⇒ Be prepared for an engine failure
  - If oil pressure in green range
    - ⇒ Reduce power on affected engine
    - ⇒ Increase airspeed
      - If oil temperature not returning to green range:
        - ⇒ Be prepared for an engine failure;
          land at nearest suitable airfield

L/R GBOX TEMP

- Reduce power on affected engine
- Increase airspeed
  - If gearbox temperature still in red range:
    - ⇒ Land at nearest suitable airfield
    - ⇒ Be prepared for an engine failure

L/R ENG TEMP

COOLANT TEMPERATURE HIGH

- Check G1000 for LOW COOL LVL caution light
  - If LOW COOL LVL caution light OFF
    - **During climb:**
      - ⇒ Reduce power on affected engine by 10% or more as required
      - ⇒ Increase airspeed by 10 KIAS or more as required
      - If coolant temp. not returning to green range within 60”:
        - ⇒ reduce power on affected engine as much as possible and increase airspeed
    - **During cruise:**
      - ⇒ Reduce power on affected engine
      - ⇒ Increase airspeed
      - If coolant temp. not returning to green range:
        - ⇒ Be prepared for an engine failure; land at nearest suitable airfield
  - If LOW COOL LVL caution light ON
    - ⇒ Reduce power on affected engine
    - ⇒ Expect loss of coolant fluid
    - ⇒ Be prepared for an engine failure

L/R FUEL TEMP

FUEL TEMPERATURE HIGH

- Reduce power on affected engine
- Increase airspeed
- Transfer fuel from AUX to MAIN tank if applicable
  - If not returning to green range:
    - ⇒ Land at nearest suitable airfield

L/R FUEL PRES

- Check fuel quantity
- FUEL SELECTOR of affected engine: check ON
- FUEL PUMPS of affected engine: ON
  - If warning remains:
    - ⇒ FUEL SELECTOR of affected engine: CROSSFEED
      - If warning still remains:
        - ⇒ Be prepared for an engine failure

L/R ALTN AMPS

HIGH CURRENT

- Check circuit breakers
- Reduce electrical load and land at nearest suitable airfield

L/R STARTER

STARTER NOT DISENGAGING

On ground:

- ⇒ Affected power lever IDLE
- ⇒ Affected engine master OFF
- ⇒ Electric master OFF

In flight:

- ⇒ Pull LDG LT/START CB (RH Main Bus; push again when LDG light needed)
- ⇒ Watch engine cowling and instruments
- ⇒ Land at nearest suitable airfield

L/R DOOR OPEN
REAR DOOR OPEN
FWD DOOR OPEN

UNLOCKED DOORS

- Reduce airspeed immediately
- Check all doors visually
  - If passenger door unlocked:
    - ⇒ airspeed below 140 KIAS, land at nearest suitable airfield
    - ⇒ do not try to lock door in flight
  - If front baggage door open:
    - ⇒ reduce airspeed to keep door(s) in stable position, land at nearest suitable airfield

G1000 WARNING

L/R ENG FIRE OR ENGINE FIRE OBSERVED

❖→ **On ground:**

1	Engine masters (2)	OFF	1
2	Fuel selectors (2)	OFF	2
3	Mayday call	CONSIDER	3
4	Electric master	OFF	4
	When engine and aircraft stopped:		
5	Doors	OPEN	5
	Evacuate		

❖→ **During Take-off**

1	Cabin heat & defrost.....	OFF	1
2	Emergency windows (2).....	OPEN	2
3	Proceed according		
	ENGINE FAILURE DURING TAKE-OFF → page 8...		3

G1000 WARNING

L/R ENG FIRE

- **In flight:**
  - ⇒ Evaluate the situation
    - If Engine Fire observed:
      - ⇒ Proceed according
        ENGINE FIRE IN FLIGHT → page 8

ENGINE FAILURE DURING TAKE-OFF

REJECTED TAKE-OFF OR EMERGENCY RE-LANDING

1	Power	OFF	1
2	Brakes	APPLY	2
3	ATC	INFORM	3
	If necessary:		
4	Engine Masters (2)	OFF	4
5	Fuel selectors (2)	OFF	5
6	Electric Master	OFF	6

ENGINE FAILURE DURING FLIGHT AND ENGINE SHUTDOWN

If airspeed below Vmca:

Perform Vmc recovery procedure

Airspeed above Vmca:

1	Power	INCREASE up to MAX	1
2	Airspeed	min BLUE LINE	2
3	Landing gear	UP	3
4	Flaps	UP	4
5	Power lever (affected engine)	REDUCE TO VERIFY	5
6	Engine Master (affected engine)	OFF	6
	Above safe altitude		
7	Power (life engine)	up to MAX CONTINUOUS	7
8	Alternator (dead engine)	OFF	8
9	Fuel pumps (dead engine)	OFF	9
10	Fuel selector (dead engine)	OFF	10

ENGINE FIRE IN FLIGHT

1	Cabin heat & defrost	OFF	1
2	Emergency windows (2)	OPEN	2
3	Shut down the engine according		

⇧ **ENGINE SHUT DOWN**-procedure ⇧

ENGINE TROUBLESHOOTING

❖→ If

L OR R ECU A AND B FAIL simultaneously

and ALL of the following conditions exist:
- **indicated LOAD unchanged**
- **perceived thrust is reduced**
- **engine noise level changes or engine running rough**

1 POWER lever .....IDLE for 1 second 1
2 POWER lever .....slowly increase to 1975 RPM 2
- If engine shows power loss during the POWER lever increase

3 POWER lever ..... idle for 1 second 3
4 POWER lever .....slowly increase 4
stop prior to the RPM where former engine power loss was observed

Do not increase the POWER lever past the propeller speed of 1975 RPM or the setting determined in step 4. An increase of engine power beyond this setting leads into another power loss.
With this power setting the engine can provide up to 65% at the maximum propeller speed of 1975 RPM

5 Land at nearest suitable airfield 5

End of Checklist

❖ Otherwise:

1 Power lever (good engine) . INCREASE up to MAX 1
2 Circuit breakers .....CHECK/RESET 2
- If engine OK: continue, land ASAP End of Checklist

3 VOTER switch .....SWAP between A and B 3
- If engine OK: continue, land ASAP End of Checklist

4 VOTER switch .....AUTO 4
- If engine OK: continue, land ASAP End of Checklist

5 *Above 10000 ft:* Fuel pumps (affected engine) . ON 5
6 Fuel selector (affected engine).....CROSSFEED 6
- If engine OK: continue, End of Checklist

7 Fuel selector (affected engine)ON or CROSSFEED 7
8 Alternate air ..... OPEN 8
- If engine OK: land as soon as practicable End of Checklist
- If engine still not OK: Be prepared for ENGINE FAILURE IN FLIGHT, land ASAP End of Checklist

ENGINE RESTART

Reason for shutdown must be ascertained

	With starter	***Windmilling*** ***(demonstration and training not approved)***
15.000 ft PA - 10.000 ft PA	***Max 80 KIAS or stationary prop, whichever is lower. Do not engage starter when prop is windmilling.***	***Immediate restart Min 100 KIAS Max 115 KIAS***
Up to 10.000 ft PA	OAT below –15°C: max. engine OFF time 2 minutes	
	OAT -15 to -5°C: max. engine OFF time 5 minutes	
	OAT above -5°C: max. engine OFF time 10 minutes	
	Max 80 KIAS or stationary prop, whichever is lower. Do not engage starter when prop is windmilling.	***Min 110 KIAS Max 115 KIAS***

1 Power (affected engine) ..... IDLE 1
2 Fuel selector (affected engine) ..... ON 2
3 Alternate air ..... AS REQUIRED 3
4 Alternator (affected engine) ..... ON 4
5 Engine Master (affected engine) ..... ON 5

For restart with starter motor:

6 Starter ..... ENGAGE when prop stationary 6
7 Circuit breakers ..... CHECK/RESET if necessary 7

If engine started:

8 Power (affected engine) ..... MODERATE 8
9 Engine instruments ..... check GREEN RANGE 9

OSCILLATING RPM

FIXED RPM

RPM OVERSPEED

1 Power lever ..... change setting 1

- If no success:

Check G1000 for ECU FAIL caution

- If ECU FAIL caution indicated:

2 VOTER switch ..... unaffected ECU 2

- If no success:

3 VOTER switch ..... AUTO 3

Land at nearest suitable airfield

- **In case of RPM overspeed:**

Be prepared for ENGINE FAILURE IN FLIGHT

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

1 Safety harnesses ..... FASTENED and TIGHT 1

After touchdown (if necessary):

2 Engine Masters (2) ..... OFF 2
3 Fuel selectors (2) ..... OFF 3
4 Electric Master ..... OFF 4

LANDING GEAR UNSAFE WARNING

If on for more than 20 seconds:

1 Airspeed ..... max 162 KIAS 1

In cold temperature:

2 Airspeed ..... max 110 KIAS 2

3 Gear selector ..... RECYCLE 3

❖→ If landing gear **extension** unsuccessful:

Continue with MANUAL EXTENSION

❖ If landing gear **retraction** unsuccessful:

Consider flight with landing gear down

MANUAL EXTENSION OF LANDING GEAR

1 Airspeed ..... max 162 KIAS 1

2 Gear indicator lights ..... TEST 2

3 Electric master ..... CHECK ON 3

4 Bus voltage ..... CHECK NORMAL 4

5 Circuit breaker ..... CHECK 5

6 Gear selector ..... DOWN 6

7 Manual extension handle ..... PULL 7

If necessary

8 Airspeed ..... max 110 KIAS 8

Apply moderate yawing

9 Gear indicator lights ..... CHECK 3 GREENS 9

LANDING GEAR UP LANDING

(Landing gear completely retracted)

1 Approach ..... NORMAL 1

If time/situation allows: just before touchdown:

2 Power lever ..... IDLE 2

3 Engine Masters (2) ..... OFF 3

4 Fuel pumps (2) ..... OFF 4

5 Fuel selectors (2) ..... OFF 5

Immediately after touchdown:

6 Electric Master ..... OFF 6

ELECTRICAL FIRE ON GROUND

1 Mayday call .....CONSIDER 1
2 Electric Master ..... OFF 2
3 Power levers (2) ..... IDLE 3
4 Engine Masters (2) ..... OFF 4
5 Fuel selectors (2) ..... OFF 5

When engine and aircraft stopped:

6 Doors ..... OPEN 6

Evacuate

ELECTRICAL FIRE IN FLIGHT

1 Mayday call .....CONSIDER 1
2 Avionic master..... OFF 2
3 Electric master ..... OFF 3
4 Cabin heat & defrost..... OFF 4
5 Emergency windows..... OPEN as necessary 5

Land at nearest suitable airfield

COMPLETE ELECTRICAL FAILURE

* Leave icing area

1 Circuit breakers .....CHECK all IN 1

- If no success:

2 Map light, if necessary ..... try to switch ON 2
3 Power..... SET 3

according power lever position and/or engine noise

4 Flaps .....VERIFY POSITION 4

Land at nearest suitable airfield
Landing gear may slowly extend
For landing apply "Manual extension of landing gear"
Standby Attitude Module will be powered for min 1 hour

If Oxygen System is installed

CABIN SMOKE ABOVE 10.000 FT

1 Oxygen.....CHECK ON 1
2 Emergency descent.....INITIATE 2
When passing 10.000 ft
3 Oxygen..... OFF 3
Land at nearest suitable airfield

CABIN FIRE ABOVE 10.000 FT

1 Oxygen.....PUSH OFF 1
2 Emergency descent..... INTITIATE 2
Land at nearest suitable airfield

OXYGEN PRESSURE LOSS ABOVE 10.000 FT

1 Oxygen.....PUSH OFF 1
2 Oxygen pressure.....CHECKED, note down 2
3 Emergency descent..... INTIATE 3

When passing 10.000 FT:

4 Oxygen pressure.....CHECK AGAIN 4
- If oxygen pressure constant: .....Continue flight
- If oxygen pressure dropped: ... Land at nearest suitable airfield

If Oxygen System is installed

EMERGENCY DESCENT

1 Flaps ..... UP 1
2 Landing Gear.....DOWN 2
3 Power levers ..... IDLE 3
4 Airspeed ..... AS REQUIRED 4
Vno=162 KIAS Vne =205 KIAS

UNINTENTIONAL FLIGHT INTO ICING

Leave icing area, continue with item 1

* INADVERTENT ICING ENCOUNTER & * EXCESSIVE ICE ACCUMULATION

1	* De-ice system	HIGH +MAX	1
2	Pitot heat	ON	2
3	Cabin heat & defrost	ON	3
4	Alternate air	OPEN	4
5	* Windshield de-ice	USE AS APPROPRIATE	5
6	Emergency windows	OPEN as required	6

- * When de-ice system does not work properly: Continue with ICE PROTECTION FAILURE

* ICE PROTECTION FAILURE

1	Airspeed	89/96 to 154 KIAS (172 KTAS) until final	1
2	Flaps	UP for landing	2
3	Approach with residual ice	97/101 KIAS	3
4	Landing distance	according AFM x 1,3	4

SUSPICION OF CARBON MONOXIDE

1	Cabin heat & defrost	OFF	1
2	Ventilation	OPEN	2
3	Emergency windows	OPEN	3

G1000 CAUTION LIGHTS

L/R FUEL LOW	Page 16	**Main tank fuel qty low**
L/R AUX FUEL E	Page 17	**L/R auxiliary fuel tank empty**
L/R ECU A FAIL	Page 17	**Fault in ECU A**
L/R ECU B FAIL	Page 17	**Fault in ECU B**
L/R ECU A+B FAIL	Page 18	**Fault in ECU A + B Simultaneous**
L/R VOLTS LOW	Page 19	**Bus voltage too low**
L/R ALTN FAIL	Page 19	**Alternator failed**
L+R ALTN FAIL	Page 19	**Both Alternators failed**
L/R COOL LVL	Page 19	**Engine coolant level low**
PITOT FAIL	Page 20	**Pitot heating system failed**
PITOT HT OFF	Page 20	**Pitot heating system OFF**
STALL HT FAIL	Page 20	**Stall warning heating failed**
STALL HT OFF	Page 20	**Stall warning heating OFF**
DEICE LVL LO	Page 20	**De-icing fluid level low**
DEIC PRES LO	Page 20	**De-icing pressure low**
DEIC PRES HI	Page 20	**De-icing pressure high**

Engine instrument indications outside of green range

Other abnormal situations

L/R FUEL LOW

MAIN TANK FUEL QTY LOW

- **Check fuel quantity**
- **Avoid uncoordinated flight**

- **If LH & RH quantities show remarkable difference:**
  - ⇒ **Expect loss of fuel on side with lower indicaton**
  - ⇒ **Use x-feed: Fuel selector to x-feed on side with LOW FUEL indication**
    (Above 10000 ft: Fuel pumps this side ON)

L/R AUX FUEL E — AUXILIARY FUEL TANK EMPTY

⇒ **L/R auxiliary fuel pump OFF**

L/R ECU A or B FAIL ON GROUND

1	VOTER switch–	check AUTO	1
2	Other ECU caution	check OFF	2

Clearing procedure:

3	VOTER switch	set to failed ECU	3
	Wait 5 seconds		
4	Voter switch	AUTO	4

- **If ECU caution persists termimate flight preparation**

L/R ECU A or B FAIL IN AIR

Remark: in case of ECU fail the system automatically switches to the other ECU

1	Alternate Air	OPEN	1
2	Fuel pumps LH/RH	ON	2
3	Circuit breakers	CHECK/RESET if necessary	3
4	VOTER switch	check AUTO	4

- **If ECU caution persists:**
  - ⇒ **ECU caution clearing procedure may be used:**

BUT: In case of negative 1-eng climb rate only if a suitable landing site is available within gliding distance. Be prepared for loss of engine power.

5	Safe altitude	CHECK	5
6	Airspeed	BLUE LINE	6
7	Flaps	check UP	7
8	Landing gear	check UP	8
9	Other ECU caution	check OFF	9
10	VOTER switch	set to failed ECU	10
	Wait 5 seconds		
11	Voter switch	AUTO	11

- **If ECU caution persists:**
  - **Land at nearest suitable airfield**
- **If additional engine problems are observed:**

- **Go to Emergency Checklist page 9**
  ENGINE TROUBLESHOOTING

L OR R
ECU A FAIL and ECU B FAIL
SIMULTANEOUSLY

➢ **Go to Emergency Ckl page 9 ENGINE TROUBLESHOOTING**

L/R VOLTS LOW

Remark: possible reasons are
- fault in the electrical power supply
- Alternators OFF

- **Continue with "Engine instrument indications outside of green range" – VOLTS low, page 22**

L/R ALTN FAIL

ALTERNATOR FAILED

- **If in icing conditions:**
  - ⇒ **Leave icing area as soon as practicable**
- **Alternator on affected side OFF**
- **Monitor bus voltage**
- **Reduce electrical consumers**
  - **If both alternators failed:**
    - ⇒ **See Abnormal Checklist "Both Alternators failed", 🡻**

L ALTN FAIL + R ALTN FAIL

BOTH ALTERNATORS FAILED

Reduce all electrical equipment to a minimum:

- **Avionic Master: OFF**
- **LH/RH Alternator: OFF**
- **Transponder: STBY**
- **Gear: DOWN**

- **When down and locked:**
  - ⇒ **Pull manual gear extension handle**
- **Stall/Pitot heat: OFF**
- **All lights:OFF**
  - ⇒ **Expect battery power to last for 30 minutes**
  - ⇒ **Expect engine stoppage after this time**
    - ⇒ **Land ASAP**

L/R COOL LVL

ENGINE COOLANT LEVEL LOW

- **Monitor annunciations / engine instruments**
- **Check coolant temperature**
- **See "Engine instrument indications outside of green range" – COOLANT TEMPERATURE**

PITOT FAIL
PITOT HT OFF

- check pitot heat ON, if in icing conditions

⇒ expect loss of airspeed indication

STALL HT FAIL
STALL HT OFF

⇒ expect loss of aural stall warning

- leave area with icing conditions (see Emergency Checklist page 15, "Unintentional flight into icing")

DEICE LVL LO

DE-ICING FLUID LEVEL LOW

- Maximum duration of ice protection in NORMAL mode: 50 min, in HIGH mode: 25 min

DEIC PRES LO

DE-ICING PRESSURE LOW

- *If in OAT above 10°C and below 20°C warning appears in HIGH mode switch to MAX mode to cancel warning.*
  Above 20°C OAT warning cancellation may not be possible.

- Switch DE-ICE to HIGH
  - ❖ → If DEIC PRES LO light still ON
    - ⇒ PUMP1 / PUMP2: select other pump
    - ⇒ If necessary prime pump by activating windshield pump
      - ❖ → If DEIC PRES LO light still ON
        - ⇒ Activate ALTERNATE switch
          - ❖ → If DEIC PRES LO light still ON
            - ⇒ Go to Emergency Checklist page 15 ICE PROTECTION FAILURE
      - ❖ If DEIC PRES LO light OFF
        - ⇒ Continue flight (de-icing fluid flow: 26,4 lt/hr)
        - ⇒ Monitor ice protection system operation
        - ⇒ Check de-icing fluid level periodically

DEIC PRES HI

DE-ICING PRESSURE HIGH

- Possible reduced system performance
- Leave area with icing conditions
- Unscheduled maintenance is required

ENGINE INSTRUMENT INDICATIONS OUTSIDE OF GREEN RANGE

COOLANT temperature high

- Refer to Emergency Checklist page 5, "L/R ENG TEMP"

COOLANT temperature low

Remark: During low power descent from high altitude coolant temperature may decrease. Consider increasing power.

- Check G1000 for LOW COOLANT LVL caution light

- If "LOW COOLANT LVL caution light" ON
  - ⇒ Reduce power on affected engine
  - ⇒ Expect loss of coolant fluid
  - ⇒ Be prepared for an engine failure

OIL temperature high

- Refer to Emergency Checklist page 4, "L/R OIL TEMP"

OIL temperature low

- Increase power
- Reduce airspeed

OIL pressure high

On ground during warm up with low oil temperature
- Reduce power until oil press. green, continue warm up at reduced power

During flight
- Check oil temperature
- Check coolant temperature
  - If temperatures within green range
    - ⇒ Oil press. indication may be faulty; watch temperatures
  - If temperatures outside of green range
    - ⇒ Reduce power on affected engine;
    - ⇒ Land at nearest suitable airfield, be prepared for engine fail

OIL pressure low

- Refer to Emergency Checklist page 4, "L/R OIL PRES"

FUEL temperature high

- Refer to Emergency Checklist page 5, "L/R FUEL TEMP"

FUEL temperature low

- Increase power on affected engine
- Reduce airspeed

- If not returning to green range:
  - ⇒ Be prepared for an engine faiure; land at nearest suitable airfield

VOLTS low

❖ On ground:
- ⇒ Check alternators ON
- ⇒ Check circuit breakers
  - If LOW VOLTS CAUTION still indicated on the G1000:
    - ⇒ Discontinue operation; terminate flight preparation

❖ In flight:
- ⇒ Check alternators ON
- ⇒ Check circuit breakers
- ⇒ Switch off unnecessary electrical equipment
  - If LOW VOLTS CAUTION still indicated on the G1000:
    - ⇒ Apply L/R ALTN FAIL caution procedure, page 19

RPM high

- ➢ Reduce power on affected engine
- ➢ Keep RPM in green range with appropriate power lever setting

● If problem not solved:
- ⇒ Refer to Emergency Checklist page 11 "RPM overspeed"
- ⇒ Land at nearest suitable airfield

OTHER ABNORMAL SITUATIONS

Hydraulic pump: failure or continuous operation

- ➢ Check gear indication lights
- ➢ Prepare for manual landing gear extension

L/R Auxiliary fuel XFER FAIL

- ➢ Both AUX PUMPS: OFF
- ➢ Check fuel pumps OFF
- ➢ Check fuel quantity
- ➢ Use X-feed to keep main tank fuel unbalance within 1 USG *(Above 10000 ft: Fuel pumps ON)*
- ➢ Switch remaining AUX PUMP ON
- ➢ Use X-feed to keep main tank fuel unbalance within 1 USG *(Above 10000 ft: Fuel pumps ON)*
- ➢ Amend flight plan to allow for reduced amount of available fuel