Checklist for Diamond DA62

Edition #: **3.2** Edition date: **15.05.2020**

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 # 3.2 are on page 2 of this document

**Checklist DA62 - LEP**

<table>
<thead>
<tr>
<th>Page</th>
<th>Following Edition</th>
<th>&quot;Date (or any higher) is valid</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Section: Normal Checklist</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
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| **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    | 3.2               | 15.05.2020                    |
| 17    | 3.2               | 15.05.2020                    |
| 18    | 2                 | 15.12.2017                    |
| 19    | 2.1               | 15.03.2018                    |
| 20    | 2                 | 15.12.2017                    |
| 21    | 2.1               | 15.03.2018                    |
Comments explaining Edition # 2

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

Normal Procedures:
No change

Emergency Procedures:
Page 10: Engine Restart updated

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

Comments explaining Edition # 3.1

Normal Procedures:
Editorial change

Comments explaining Edition # 3.2

Emergency & Abnormal Procedures – Editorial change / blank page deleted
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 ......................... CHECKED 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
2. RPM 710 +/- 30 ................................ CHECKED
3. Fuel selectors (2) ................................. X-FEED
4. Pitot heat ...... ON, annunciation + Amps checked
5. Pitot heat ......................................... OFF
6. Avionics master ................................. ON
7. WX radar (if installed) ............................. SBY
8. *** Only at OAT above 10°C AUX PWR switch ....... ON
9. *** RACC ......................................... ON

**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

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

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

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

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                    |

#### 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                           |
| 18| Pitot heat                           | AS REQUIRED                         |
| 19| * Ice protection                     | AS REQUIRED                         |
| 20| Transponder                          | MODE / CODE CHECKED                 |
| 21| Fuel pumps (2)                       | ON                                  |
| 22| MFD                                  | EIS – DEFAULT                       |
| 23| Parking brake                        | RELEASED                            |

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

<table>
<thead>
<tr>
<th>Speed</th>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>(V_{S_0})</td>
<td>Flaps LDG, gear down</td>
<td>64</td>
</tr>
<tr>
<td>(V_S)</td>
<td>Flaps T/O, gear down</td>
<td>69</td>
</tr>
<tr>
<td>(V_{S_1})</td>
<td>clean, gear up</td>
<td>70</td>
</tr>
</tbody>
</table>

In Ice: + 1-4 KIAS

### OPERATING SPEEDS KIAS for MTOM 1999 kg

<table>
<thead>
<tr>
<th>Speed</th>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Min. control speed (V_{MCA})</td>
<td>Flaps T/O</td>
<td>70</td>
</tr>
<tr>
<td>Rotation speed</td>
<td>Flaps T/O</td>
<td>76</td>
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<tr>
<td>Best angle of climb (V_x)</td>
<td>Flaps T/O</td>
<td>83</td>
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<tr>
<td>Best rate of climb (V_y) and V_{S_0}</td>
<td>Flaps T/O</td>
<td>83</td>
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<tr>
<td>Cruise climb</td>
<td>Flaps T/O</td>
<td>93</td>
</tr>
<tr>
<td>Best rate of climb 1-eng. (V_{YSE})</td>
<td>Flaps T/O</td>
<td>87</td>
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In Ice: + 1-4 KIAS

### MASS (kg)

<table>
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<th>Description</th>
<th>Value</th>
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<tr>
<td>Max. TKOF mass</td>
<td>1999</td>
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<tr>
<td>Max ZF mass</td>
<td>1999</td>
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<tr>
<td>Max. LDG mass</td>
<td>1999</td>
</tr>
<tr>
<td>Max. baggage in NOSE LH, RH</td>
<td>30, 30</td>
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<tr>
<td>Max. baggage in CABIN A, B</td>
<td>6, 6</td>
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<tr>
<td>Max. baggage in CABIN C, D</td>
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### Available Power Check:

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

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<th>OAT</th>
<th>Altitude [ft]</th>
<th>-35°C</th>
<th>-20°C</th>
<th>-10°C</th>
<th>0°C</th>
<th>10°C</th>
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<td>96%</td>
<td>93%</td>
<td>91%</td>
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<td>99%</td>
<td>97%</td>
<td>96%</td>
<td>93%</td>
<td>----</td>
<td>97%</td>
<td>96%</td>
<td>93%</td>
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<td>99%</td>
<td>98%</td>
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<td>94%</td>
<td>92%</td>
<td>89%</td>
<td>97%</td>
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</tbody>
</table>
All masses and speeds are for ACFT with MTOM 2300 kg

### STALLING SPEEDS KIAS for 2300 kg

<table>
<thead>
<tr>
<th>Condition</th>
<th>KIAS (V&lt;sub&gt;S&lt;/sub&gt;)</th>
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</thead>
<tbody>
<tr>
<td>Flaps LDG, gear down</td>
<td>69</td>
</tr>
<tr>
<td>Flaps T/O, gear down</td>
<td>71</td>
</tr>
<tr>
<td>(V&lt;sub&gt;S1&lt;/sub&gt;) clean, gear up</td>
<td>73</td>
</tr>
</tbody>
</table>

*In Ice: + 3-5 KIAS*

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

<table>
<thead>
<tr>
<th>Condition</th>
<th>KIAS (V&lt;sub&gt;W&lt;/sub&gt;)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Min. control speed (V&lt;sub&gt;MCA&lt;/sub&gt;)</td>
<td>70 / 76</td>
</tr>
<tr>
<td>Rotation speed</td>
<td>76/78 / 80/80</td>
</tr>
<tr>
<td>Best angle of climb (V&lt;sub&gt;X&lt;/sub&gt;)</td>
<td>83/86 / --</td>
</tr>
<tr>
<td>Best rate of climb (V&lt;sub&gt;T&lt;/sub&gt;)</td>
<td>83/86 / 87/89</td>
</tr>
<tr>
<td>Cruise climb</td>
<td>93/96</td>
</tr>
<tr>
<td>Best rate of climb 1-eng. (V&lt;sub&gt;YSE&lt;/sub&gt;)</td>
<td>87/89 in ice: 89 / 97</td>
</tr>
<tr>
<td>Operating speed in ice</td>
<td>96 – 154 KIAS (174 KTAS)</td>
</tr>
<tr>
<td>Max. flap speed (V&lt;sub&gt;FE&lt;/sub&gt;) Flaps T/O</td>
<td>136</td>
</tr>
<tr>
<td>Max. flap speed (V&lt;sub&gt;FE&lt;/sub&gt;) Flaps LDG</td>
<td>119</td>
</tr>
<tr>
<td>Max. LG extension (V&lt;sub&gt;LDE&lt;/sub&gt;)</td>
<td>205</td>
</tr>
<tr>
<td>Max. LG extended (V&lt;sub&gt;L&lt;/sub&gt;)</td>
<td>205</td>
</tr>
<tr>
<td>Max. LG retraction (V&lt;sub&gt;LOR&lt;/sub&gt;)</td>
<td>162</td>
</tr>
<tr>
<td>Approach V&lt;sub&gt;REF&lt;/sub&gt; Flaps UP</td>
<td>91/95 in ice: 97/101</td>
</tr>
<tr>
<td>Approach V&lt;sub&gt;REF&lt;/sub&gt; Flaps T/O</td>
<td>88/91 in ice: 90/96</td>
</tr>
<tr>
<td>Approach V&lt;sub&gt;REF&lt;/sub&gt; Flaps LDG</td>
<td>84/89 in ice: prohib.</td>
</tr>
<tr>
<td>Min. Go-around speed Flaps T/O</td>
<td>91</td>
</tr>
<tr>
<td>Max. cruising speed (V&lt;sub&gt;ND&lt;/sub&gt;)</td>
<td>162</td>
</tr>
<tr>
<td>Never exceed speed (V&lt;sub&gt;NE&lt;/sub&gt;)</td>
<td>205</td>
</tr>
</tbody>
</table>

### Mass (kg)

- Max. TKOF mass: 2300 kg
- Max ZF mass: 2200 kg
- Max. LDG mass: 2300 kg
- Max. baggage in NOSE LH, RH: 30, 30 kg
- Max. baggage in CABIN A, B: 6, 6 kg
- Max. baggage in CABIN C, D: 68, 40 kg
- Max. baggage in CABIN E, F: 40, 6 kg

### Available Power Check:

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

<table>
<thead>
<tr>
<th>OAT</th>
<th>-35°C</th>
<th>-20°C</th>
<th>-10°C</th>
<th>0°C</th>
<th>10°C</th>
<th>20°C</th>
<th>30°C</th>
<th>40°C</th>
<th>50°C</th>
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<tr>
<td>0</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>97%</td>
<td>96%</td>
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<tr>
<td>2000</td>
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<td>97%</td>
<td>96%</td>
<td>93%</td>
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<tr>
<td>4000</td>
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<td></td>
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<td>97%</td>
<td>96%</td>
<td>93%</td>
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</tr>
<tr>
<td>6000</td>
<td></td>
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<td></td>
<td></td>
<td>97%</td>
<td>96%</td>
<td>93%</td>
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<tr>
<td>8000</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td>97%</td>
<td>96%</td>
<td>93%</td>
<td>-----</td>
</tr>
<tr>
<td>10000</td>
<td></td>
<td>98%</td>
<td>98%</td>
<td>98%</td>
<td>96%</td>
<td>95%</td>
<td>92%</td>
<td>-----</td>
<td>-----</td>
</tr>
</tbody>
</table>

15.05.2020 Diamond Flight Training Edition # 3.2 Does not replace the Airplane Flight Manual
FMS Initialization – AUX 4 page
Recommended and compulsory settings

<table>
<thead>
<tr>
<th>TIME FORMAT</th>
<th>UTC</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAV ANGLE</td>
<td>MAGNETIC</td>
</tr>
<tr>
<td>DIS. SPD</td>
<td>NAUTICAL</td>
</tr>
<tr>
<td>ALT. VS</td>
<td>FEET</td>
</tr>
<tr>
<td>TEMP</td>
<td>CELSIUS</td>
</tr>
<tr>
<td>FUEL</td>
<td>GALLONS</td>
</tr>
<tr>
<td>POSITION</td>
<td>HDDD°MM’S’S”</td>
</tr>
<tr>
<td>AIRSPACE ALERTS</td>
<td>As desired</td>
</tr>
<tr>
<td>ARRIVAL ALERT</td>
<td>As desired</td>
</tr>
<tr>
<td>VOICE</td>
<td>As desired</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>MFD DATA BAR FIELDS</th>
<th>1 GS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2 DIS</td>
</tr>
<tr>
<td></td>
<td>3 ETE</td>
</tr>
<tr>
<td></td>
<td>4 TRK</td>
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</table>

<table>
<thead>
<tr>
<th>GPS CDI</th>
<th>AUTO</th>
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<tbody>
<tr>
<td>SELECTED</td>
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</tr>
<tr>
<td>COM CHANNEL SPACING</td>
<td>25,0 KHZ or 8.33 KHZ</td>
</tr>
<tr>
<td>NEAREST APT</td>
<td></td>
</tr>
<tr>
<td>RWY SURFACE</td>
<td>As desired</td>
</tr>
<tr>
<td>MIN LENGTH</td>
<td>As desired</td>
</tr>
</tbody>
</table>

Compulsory: [ ]

ARINC 424 Distance Coding:

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
</tr>
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<tbody>
<tr>
<td>1</td>
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<td>3</td>
<td>4</td>
<td>5</td>
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<td>K</td>
<td>L</td>
<td>M</td>
<td>N</td>
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<tr>
<td>11</td>
<td>12</td>
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<td>15</td>
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<tr>
<td>P</td>
<td>Q</td>
<td>R</td>
<td>S</td>
<td>T</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>17</td>
<td>18</td>
<td>19</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>U</td>
<td>V</td>
<td>W</td>
<td>X</td>
<td>Y</td>
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<td>21</td>
<td>22</td>
<td>23</td>
<td>24</td>
<td>25</td>
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</tbody>
</table>
**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.

<table>
<thead>
<tr>
<th>Condition</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 engines out landing</td>
<td>2</td>
</tr>
<tr>
<td>Ditching</td>
<td>3</td>
</tr>
<tr>
<td>G1000 Warnings</td>
<td>4</td>
</tr>
<tr>
<td><strong>Engine</strong></td>
<td></td>
</tr>
<tr>
<td>Engine failure during take-off</td>
<td>8</td>
</tr>
<tr>
<td>Engine failure, engine shutdown in flight</td>
<td>8</td>
</tr>
<tr>
<td>Engine troubleshooting</td>
<td>9</td>
</tr>
<tr>
<td>Engine restart</td>
<td>10</td>
</tr>
<tr>
<td>Oscillating RPM</td>
<td>11</td>
</tr>
<tr>
<td>Fixed RPM</td>
<td>11</td>
</tr>
<tr>
<td>RPM overspeed</td>
<td>11</td>
</tr>
<tr>
<td><strong>Landing Gear</strong></td>
<td></td>
</tr>
<tr>
<td>Landing with defective main gear tire</td>
<td>11</td>
</tr>
<tr>
<td>Landing with defective brakes</td>
<td>11</td>
</tr>
<tr>
<td>Landing gear unsafe warning</td>
<td>12</td>
</tr>
<tr>
<td>Manual extension of landing gear</td>
<td>12</td>
</tr>
<tr>
<td>Landing gear up landing</td>
<td>12</td>
</tr>
<tr>
<td><strong>Smoke and fire</strong></td>
<td></td>
</tr>
<tr>
<td>Engine fire on ground or during take-off</td>
<td>7</td>
</tr>
<tr>
<td>Engine fire in flight</td>
<td>8</td>
</tr>
<tr>
<td>Electrical fire on ground</td>
<td>13</td>
</tr>
<tr>
<td>Electrical fire in flight</td>
<td>13</td>
</tr>
<tr>
<td>If Oxygen System is installed:</td>
<td></td>
</tr>
<tr>
<td>Cabin smoke, cabin fire above 10.000 ft</td>
<td>14</td>
</tr>
<tr>
<td><strong>Other Emergencies</strong></td>
<td></td>
</tr>
<tr>
<td>Complete electrical failure</td>
<td>13</td>
</tr>
<tr>
<td>Emergency descent</td>
<td>14</td>
</tr>
<tr>
<td>Suspcion of carbon monoxide</td>
<td>15</td>
</tr>
<tr>
<td>Unintentional flight into icing, Inadvertent icing encounter &amp; excessive ice accumulation</td>
<td>15</td>
</tr>
<tr>
<td>Ice protection failure</td>
<td>15</td>
</tr>
<tr>
<td>If Oxygen System is installed:</td>
<td></td>
</tr>
<tr>
<td>Oxygen pressure loss above 10.000 ft</td>
<td>14</td>
</tr>
</tbody>
</table>

*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

<table>
<thead>
<tr>
<th>Approach speed</th>
<th>up to 1999 kg</th>
<th>above 1999 kg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flaps T/O</td>
<td>88 KIAS</td>
<td>91 KIAS</td>
</tr>
<tr>
<td>Flaps LDG</td>
<td>84 KIAS</td>
<td>89 KIAS</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Situation</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heavy swell with light wind</td>
<td>ditch parallel to the swell</td>
</tr>
<tr>
<td>Heavy wind</td>
<td>ditch into the wind</td>
</tr>
</tbody>
</table>

4. Flaps ................................................... LDG 4
5. Final approach speed $V_{ref}$ .......... 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

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

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

L/R OIL PRES

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

L/R OIL TEMP

- 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

- 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

- 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**

- **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
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

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**

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

Otherwise:

1. Power lever (good engine) . INCREASE up to MAX  
2. Circuit breakers .........................CHECK/RESET  
- If engine OK: continue, land ASAP  
3. VOTER switch ......................SWAP between A and B  
- If engine OK: continue, land ASAP  
4. VOTER switch ......................................... AUTO  
- If engine OK: continue, land ASAP  
5. Above 10000 ft: Fuel pumps (affected engine) . ON  
6. Fuel selector (affected engine).......CROSSFEED  
- If engine OK: continue,  
7. Fuel selector (affected engine)ON or CROSSFEED  
8. Alternate air .........................OPEN  
- If engine OK: land as soon as practicable  
- If engine still not OK: Be prepared for
  ENGINE FAILURE IN FLIGHT, land ASAP
ENGINE RESTART

Reason for shutdown must be ascertained

<table>
<thead>
<tr>
<th></th>
<th>With starter</th>
<th>Windmilling (demonstration and training not approved)</th>
</tr>
</thead>
<tbody>
<tr>
<td>15.000 ft PA</td>
<td>Max 80 KIAS</td>
<td>Immediate restart Min 100 KIAS</td>
</tr>
<tr>
<td>- 10.000 ft PA</td>
<td>or stationary prop, whichever is lower. Do not engage starter when prop is windmilling.</td>
<td>Max 115 KIAS</td>
</tr>
</tbody>
</table>

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

For restart with starter motor:
6. Starter ................ ENGAGE when prop stationary
7. Circuit breakers ........ CHECK/RESET if necessary

If engine started:
8. Power (affected engine) ..................... MODERATE
9. Engine instruments ............. check GREEN RANGE
OSCILLATING RPM

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
**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 ......................... INITIATE 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 ......................... INITIATE 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

**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
2. Pitot heat..............................................ON
3. Cabin heat & defrost.............................ON
4. Alternate air.........................................OPEN
5. * Windshield de-ice ............USE AS APPROPRIATE
6. Emergency windows..................OPEN as required

* 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
2. Flaps ..................................................UP for landing
3. Approach with residual ice.............97/101 KIAS
4. Landing distance.................according AFM x 1,3

**SUSPICION OF CARBON MONOXIDE**

1. Cabin heat & defrost.......................OFF
2. Ventilation ........................................OPEN
3. Emergency windows......................OPEN
## G1000 CAUTION LIGHTS

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

### Engine instrument indications outside of green range

- COOLANT temperature high/low .................. page 21
- OIL temperature high/low ....................... page 21
- OIL pressure high/low ............................ page 21
- FUEL temperature high/low ........................ page 21
- VOLT low ............................................ page 22
- RPM high ............................................. page 22

### Other abnormal situations

- Hydraulic pump fail or continuous ops... page 22
- AUX fuel transfer fail ............................ page 22

### L/R FUEL LOW

- Check fuel quantity
- Avoid uncoordinated flight
- If LH & RH quantities show remarkable difference:
  - Expect loss of fuel on side with lower indication
  - 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

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

**Clearing procedure:**

3. VOTER switch .......................................................... set to failed ECU
   - Wait 5 seconds
4. Voter switch .......................................................... AUTO
   - If ECU caution persists terminate flight preparation

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

1. Alternate Air .......................................................... OPEN
2. Fuel pumps LH/RH .......................................................... ON
3. Circuit breakers .................................................. CHECK/RESET if necessary
4. VOTER switch .......................................................... check AUTO
   - 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
6. Airspeed .......................................................... BLUE LINE
7. Flaps .......................................................... check UP
8. Landing gear .......................................................... check UP
9. Other ECU caution .......................................................... check OFF
10. VOTER switch .......................................................... set to failed ECU
    - Wait 5 seconds
11. Voter switch .......................................................... AUTO
   - 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 20

L/R ALTN FAIL

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

**STALL HT FAIL**

**STALL HT OFF**

- expect loss of aural stall warning

**DEICE LVL LO**

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

**DEIC PRES LO**

- 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
          - 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**

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

**DE-ICING FLUID LEVEL LOW**

**DE-ICING PRESSURE LOW**

- DE-ICING PRESSURE HIGH
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 failure;
    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 17

**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
Performance DA62

Max demonstrated x-wind component:

25 kt

TKOF, LDG Performance general
For temperatures, altitudes and weights between those provided in the tables, use a linear interpolation between neighboring values.
For weights below 1800 kg, use data for the lowest weight.
For operation in OAT lower than provided in the tables, use data for the lowest temperature shown.
For operation in OAT higher than provided in the tables, use extreme caution.
The effect of 50% of the headwind component and 150% of the tailwind component is already incorporated in the head- and tailwind factors.

<table>
<thead>
<tr>
<th>Effect of Wind</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Take-Off distance</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Landing distance</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Effect of runway slope</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Take-Off ground roll</td>
</tr>
<tr>
<td>Landing ground roll</td>
</tr>
</tbody>
</table>

TKOF on Grass Runway

<table>
<thead>
<tr>
<th>Length of grass</th>
<th>TKOF roll</th>
<th>Wet grass</th>
</tr>
</thead>
<tbody>
<tr>
<td>- 5 cm</td>
<td>+ 10%</td>
<td></td>
</tr>
<tr>
<td>5 - 10 cm</td>
<td>+ 15%</td>
<td>additional + 10%</td>
</tr>
<tr>
<td>10 - 25 cm</td>
<td>+ 25%</td>
<td></td>
</tr>
<tr>
<td>&gt; 25 cm</td>
<td>TKOF should not be attempted</td>
<td></td>
</tr>
<tr>
<td></td>
<td>+ 45% on soft ground !</td>
<td></td>
</tr>
</tbody>
</table>

Landing on Wet Runway

<table>
<thead>
<tr>
<th>Landed RWY</th>
<th>LDG roll</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paved WET</td>
<td>+ 15%</td>
</tr>
</tbody>
</table>

Landing on Grass Runway

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<th>LDG roll</th>
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<td>Min + 25%</td>
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