

**PROCEDURES FOR NORMAL OPERATION PIPER DR40**

Parameters, restrictions, procedures and emergency procedures see AFM

**ENGINE START (NORMAL)**

1. Fuel pump ..... ON
2. Mixture..... RICH
3. Magnetos ..... LEFT
4. Prime ..... according PRIMING TABLE
5. Throttle ..... IDLE
6. Starter..... ENGAGE
7. Magnetos ..... BOTH
8. Power..... SET 1000 RPM
9. Alternator..... ON
10. Oil pressure..... OBSERVE
11. Fuel pump ..... OFF

**PRIMING TABLE (STROKES)**

OAT [°C]	-10	0	+10	+20	+30
Engine cold	5-6	3-4	2	1-2	1
Engine hot	1-3	1	0-1	0	0

**BEFORE FIRST TAXI**

1. Time (Block off) ..... TABULATED
2. Flaps ..... UP
3. Directional gyro ..... SET
4. Taxi area ..... FREE

**TAXI**

1. Taxi light..... ON
2. Power..... SET
3. Parking brake..... RELEASED

**AFTER FIRST TAXI**

1. Brakes ..... CHECKED
2. Attitude indicator ..... ERECTED / STABLE
3. Turn coordinator ..... L/R TURNING
4. Directional gyro ..... L/R TURN: DECREASING/INCREASING

**STOP**

1. Power..... SET
2. Parking brake..... SET
3. Taxi light..... OFF

**ENGINE TEST**

1. Power..... 2000 RPM SET
2. Oil pressure..... CHECK / GREEN ARC
3. Fuel pressure..... CHECK / GREEN ARC
4. Gyro suction..... CHECK / GREEN ARC
5. Voltmeter..... GREEN ARC
6. Annunciator warnings..... OFF
7. Left Magneto..... DROP \_\_\_ RPM (MAX 175)
8. Right Magneto..... DROP \_\_\_ RPM (MAX 175)
9. Difference L/R Magneto..... \_\_\_ RPM (MAX 50)
10. Carburetor heat..... FUNCTION CHECKED
11. Mixture..... FUNCTION CHECKED
12. Throttle idle..... BETWEEN 500 AND 700 RPM
13. Power..... SET 1000 RPM

**LINING UP**

1. Wind (RTF / Windssock)..... DIRECTION / SPEED
2. Runway..... IDENTIFIED
3. Approach sector..... FREE
4. Lights (Landing / Strobe)..... ON

**LINED UP & TAKE OFF**

1. Brakes..... PUSH
2. Runway & Gyro heading..... COMPARE
3. Time..... CHECKED
4. Take off power..... SET
5. Power (min. RPM)..... CHECKED
6. Brakes..... RELEASED
7. Speed..... RISE

**AFTER TAKE OFF**

1. Speed..... ABOVE 60
2. Flaps..... UP

**SAVE ALTITUDE (MIN 400 FT AAL)**

- 1. Fuel pump ..... OFF except Circuits
- 2. Fuel pressure ..... GREEN ARC

**2000 FT AGL**

- 1. Speed ..... V CC 90

**200 FT BEFORE LEVEL OFF**

- 1. Reaching ..... (... FT / FL ...)

**LEVEL OFF**

- 1. Altitude ..... (... FT / FL ...)
- 2. Attitude ..... ADJUST
- 3. Power ..... RPM \_\_\_\_
- 4. Trim ..... ADJUST
- 5. Mixture ..... ADJUST

**STARTING DESCENT**

- 1. Mixture ..... ADJUST
- 2. Attitude ..... FOR DESCENT
- 3. Power ..... RPM \_\_\_\_
- 4. Trim ..... ADJUST

**INITIAL APPROACH**

- 1. Speed ..... BELOW 92
- 2. Flaps ..... 1
- 3. Speed ..... 80

**APPROACHING GLIDE PATH**

- 1. Power ..... SET
- 2. Speed ..... BELOW 81
- 3. Flaps ..... 2
- 4. Speed ..... 70
- 5. Starting ..... DESCENT

**FINAL APPROACH**

- 1. Speed ..... V FINAL \_\_\_\_

**BEFORE GATE**

- 1. Carburetor heat ..... OFF

**GO AROUND**

- 1. Power..... FULL OPEN
- 2. Carburetor heat ..... OFF
- 3. Attitude ..... ROTATE according Speed
- 4. Speed above 60 + pos ROC ..... FLAPS RETRACT

**ENGINE SHUT DOWN**

- 1. Electrical consumers ..... OFF except Avionic
- 2. Alternator ..... OFF
- 3. Throttle ..... IDLE
- 4. Magnetos grounding ..... AS REQUIRED
- 5. Mixture..... CUT OFF
- 6. Magnetos ..... OFF

**TAKEOFF BRIEFING****Departure**

Takeoff procedure..... Wind, Temperatur, Gewicht, Pistenzustand  
 Climb profil ..... Safe altitude,  $v_x$ ,  $v_y$ ,  $v_{cc}$   
 Airspace..... Einschränkungen  
 Routing ..... Flugweg zum verlassen Flugplatzbereich

**Emergency**

Malfunction on Ground..... Massnahmen vor dem Abheben  
 Engine failure TO & Climbout ..... erste Massnahmen nach dem Start  
 Major Malfunction after TO ..... Massnahmen und Flugweg nach dem Start

**APPROACH BRIEFING**

Runway ..... Wind, Landerichtung, Landezone  
 Airspace..... Einschränkungen auf dem Flugweg  
 Routing ..... Flugweg und Höhengates beim Anflug  
 Missed approach..... GA-Marke, Flugweg nach einem Durchstart

**FINAL SPEED CALCULATION****MASS FACTOR**

Speed reduction on Final: 1 kt per 30 kg below MTOM

**WIND FACTOR**

Speed increments on Final: if windspeed or gust is exceeding 10% of  $v_{final}$   
 Add 1/2 of headwind component to  $v_{final}$

**EXAMPLE FINAL-SPEED INCREMENT**

$v_{final}$	$v_{headwind}$		increment	$v_{final}$
66 KIAS	6 KT	Windspeed below 10%	0 KT	66 KIAS
66 KIAS	20 KT	Windspeed above 10%	10 KT	76 KIAS
66 KIAS	20 up to 36 KT	Gustspeed above 10%	18 KT	84 KIAS

FINAL APPROACH SPEED =  $v_{final}$  - Mass factor + Wind factor

**BANK FACTOR**

if bankangle for turning final is more than 25°: Add 5 kt to  $v_{intermediate}$

**FLIGHTPATH CALCULATION**

Flight angle	Gradient [ft/NM], [%]	ROD/ROC [ft/min]	ref. RPM (no wind)
3°	300 ft/NM = 5%	GS x 5	1700
4°	400 ft/NM = 7%	GS x 7	1600
5°	500 ft/NM = 9%	GS x 9	1500

ROD/ROC [ft/min] = GS [kt] x Gradient [%]

**Climb with obstacles**

2000 ft AGL  
accelerate to  $V_{cc}$

**CLIMB  
CHECK**

400 ft AAL Safe altitude  
no turns below

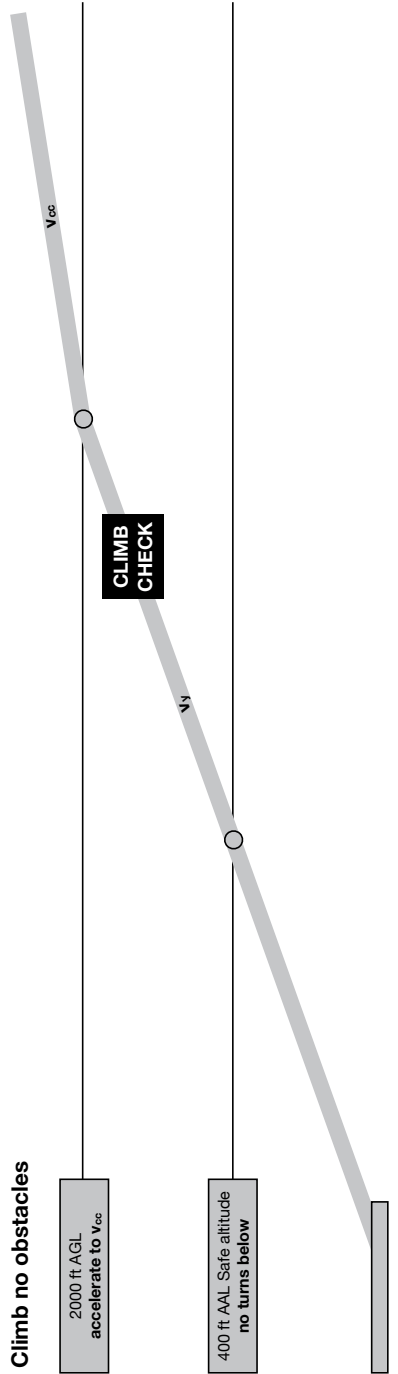
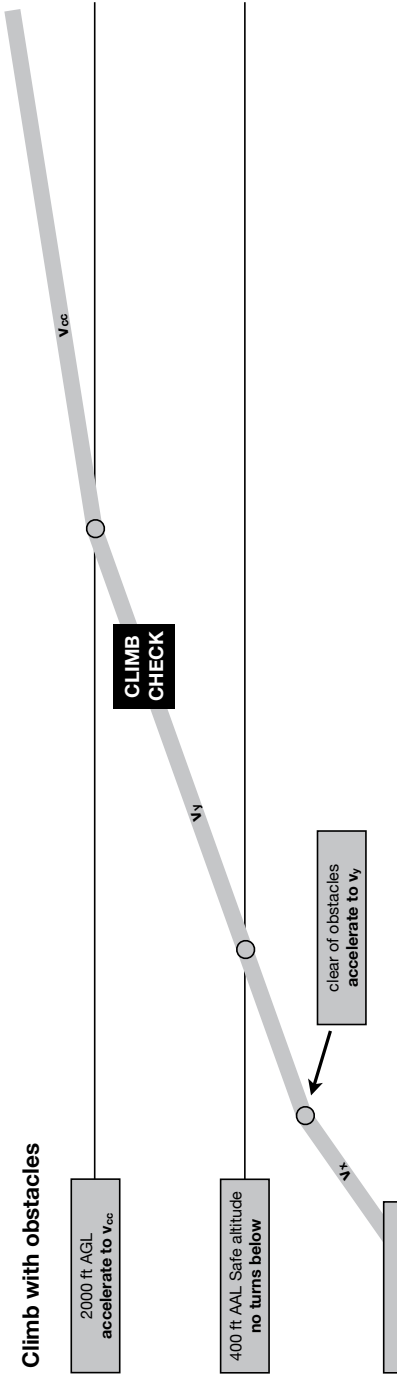
clear of obstacles  
accelerate to  $V_y$

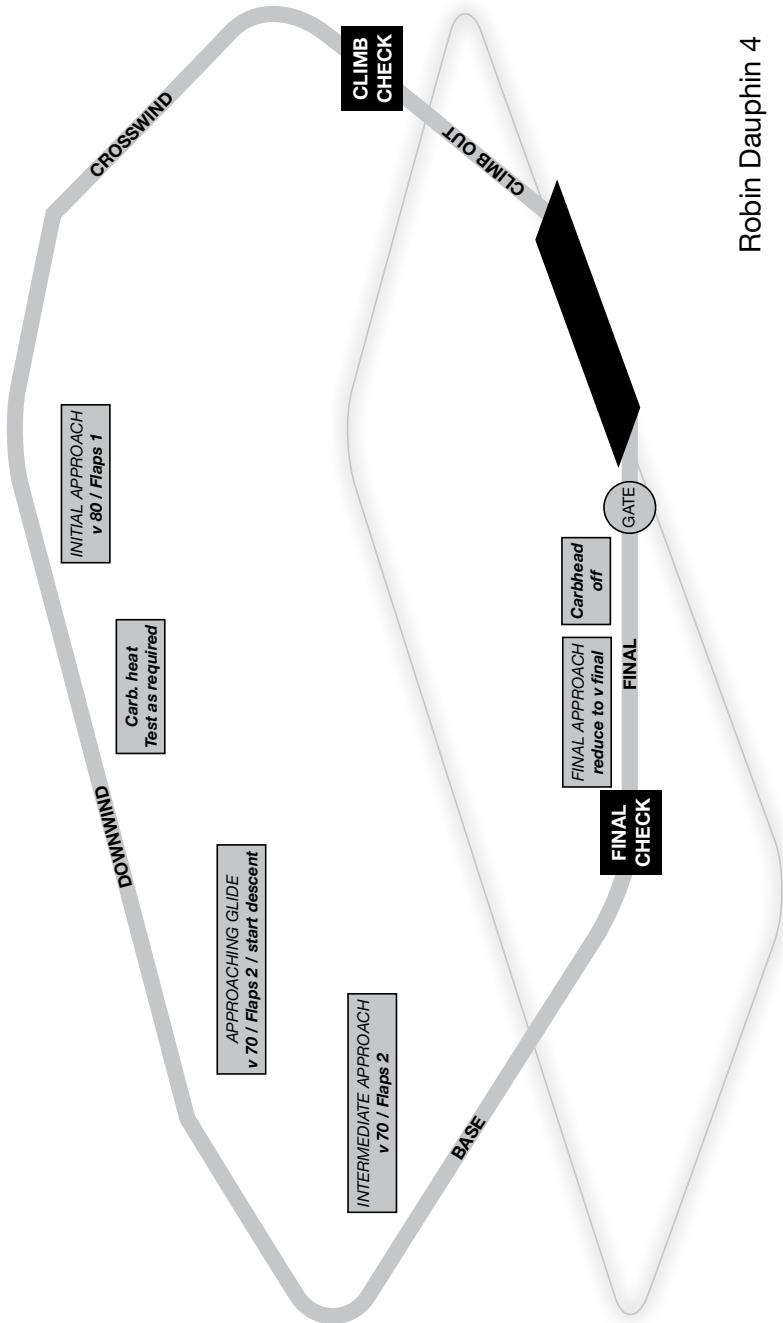
**Climb no obstacles**

2000 ft AGL  
accelerate to  $V_{cc}$

**CLIMB  
CHECK**

400 ft AAL Safe altitude  
no turns below





Jan11  
v5.2

***FLUGSCHULE GRENCHEN***

**PROCEDURES**

**Robin Dauphin 4**

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