

## PREFLIGHT CHECK

## CABIN

1 Aircraft Log & Aircraft Papers .....	CHECKED
2 LANE (Ignition Switch).....	OFF & KEY REMOVED
3 AV (Avionics Master) .....	OFF
4 BAT (Master Switch).....	ON
5 Fuel Quantity (electrical & sight gauges) .....	CHECKED (Endurance !)
6 Flaps Control Linkage .....	CHECK SECURE
7 BAT (Master Switch).....	OFF

## OUTSIDE

8 Oil check (gurgling noise!) & Outside Check ..... ACCORDING AFM

## PREFLIGHT CHECK COMPLETED

## CHECK BEFORE ENGINE START

1 Cabin Doors .....	CLOSED
2 Seats, Seat Belts & Shoulder Harness .....	ADJUSTED & SECURED
3 Fuel Shutoff Valve.....	OPEN
4 Parking Brake .....	SET
5 BAT (Master Switch).....	ON
6 ACL (Anti-Collision Light) .....	ON
7 Fuel Pumps.....	MAIN ON / AUX OFF
8 Circuit Breakers .....	CHECKED IN
9 EMU Display (Engine Monitoring Unit) .....	CHECKED

## CHECK BEFORE ENGINE START COMPLETED

## STARTING ENGINE &amp; AFTER ENGINE START CHECK

1 Propeller Area & Zone behind Aircraft .....	CLEAR
2 Rotate Ignition Switch to .....	"A/B" – short pause
3 Rotate Ignition Switch further to .....	"START POWER" and HOLD
4 Throttle see display on EMU (centre above RPM & MAN) engine warm:	PUSH OPEN until 50%
..... engine cold:	PUSH OPEN until 49% - 70%
..... EMU Display:	wait for "A" & "B" to switch off
5 Fuel Pressure.....	min 3.0 bar
6 Rotate Ignition Switch .....	"START ENGINE" (max 10 sec)
7 Oil Pressure (not longer than 10 sec) .....	GREEN
8 Throttle.....	2 000 rpm
6 Engine Instruments .....	CHECKED
7 Engine Warm Up.....	WAIT 2 MINUTES
8 Generator Warning .....	GEN OK
if warning persists SET 2 800 rpm – wait and.....	CHECK AGAIN GEN OK
10 AV (Avionics Master) .....	ON & FREQUENCY SET
11 MFD (Multi-Functional Display) .....	SET QNH

## STARTING &amp; AFTER ENGINE START CHECK COMPLETED – READY TO TAXI

# TAXI CHECK

- 1 Brakes & Steering ..... CHECKED  
2 Gyro Instruments & Magnetic Compass ..... CHECKED

## TAXI CHECK COMPLETED

## RUN UP

- |    |  |  |
|----|--|--|
| 1  | Parking Brake .....                            | SET  |
| 2  | Oil Temperature .....                          | min 50° C  |
| 3  | Zone behind Aircraft.....                      | CLEAR  |
| 4  | Throttle.....                                  | 3 000 rpm  |
| 5  | Generator Warning .....                        | GEN OK   |
| 6  | Rotate Ignition Switch to “B”.....             | max drop 150 rpm<br>MONITOR EMU Display<br>CHECK “ <b>LANE A</b> ” LIGHTS UP |
| 7  | Rotate Ignition Switch to “A”.....             | max drop 150 rpm<br>MONITOR EMU Display<br>CHECK “ <b>LANE B</b> ” LIGHTS UP |
| 8  | Rotate Ignition Switch to “B”.....             | CHECK “ <b>LANE A</b> ” LIGHTS UP  |
| 9  | Rotate Ignition Switch to “A/B” .....          | CHECK “ <b>LANE A</b> ” & “ <b>B</b> ” OFF                                   |
| 10 | Throttle.....                                  | 2 000 rpm  |
| 11 | Fuel Pressure .....                            | Pressure CHECKED   |
| 12 | Fuel “ <b>AUX PUMP</b> ” – ON .....            | Pressure CHECKED   |
| 13 | Fuel “ <b>MAIN PUMP</b> ” – OFF .....          | Pressure CHECKED   |
| 14 | Fuel “ <b>MAIN PUMP</b> ” – ON .....           | Pressure CHECKED   |
| 15 | Throttle.....                                  | CHECK IDLE ( $\pm$ 1 400 rpm)  |
| 16 | Throttle.....                                  | 2 000 rpm  |
| 17 | Throttle Friction Nut (left side only) .....   | FINGER TIGHT   |
| 18 | EMU (Engine Monitoring Unit) Power Supply..... | min 12 V each folder green   |

RUN UP COMPLETED

#### CHECK BEFORE DEPARTURE

- | CHECKLIST: PRE-FLIGHT                             |                          |
|---|--------------------------|
| 1 Seats, Seat Belts & Shoulder Harness (PAX)..... | RECHECKED                |
| 2 Cabin Doors .....                               | CLOSED & LATCHED         |
| 3 Flaps .....                                     | AS REQUIRED              |
| 4 Ignition Switch.....                            | "A/B"                    |
| 5 Fuel Pumps.....                                 | BOTH ON                  |
| 6 Fuel Quantity.....                              | CHECKED (Endurance !)    |
| 7 Elevator Trim.....                              | SET FOR TAKE OFF         |
| 8 Circuit Breakers .....                          | CHECKED                  |
| 9 Flight Instruments .....                        | CHECKED & SET            |
| 10 Engine Instruments .....                       | CHECKED <b>all green</b> |
| 11 Flight Controls.....                           | FREE & CORRECT           |
| 12 Departure & Emergency Briefing .....           | COMPLETED                |
| 13 Parking Brake .....                            | RELEASED                 |

CHECK BEFORE DEPARTURE COMPLETED – READY TO LINE UP

**Approach Sector & Runway** ..... **FREE / ENTER THE RUNWAY & LINE UP**

**LINE UP CHECK**

- |                                     |  |
|-------------------------------------|--|
| 1 Runway .....                      | IDENTIFIED & DG (CONFIRMED)            |
| 2 Wind .....                        | CHECKED                                |
| 3 NAV/POS (Navigation Lights) ..... | ON                                     |
| 4 Transponder.....                  | SELECT “ <b>ALT</b> ” ( <b>7 000</b> ) |
| 5 Time .....                        | NOTED                                  |

**LINE UP CHECK COMPLETED**

**CLIMB CHECK**

- |   |   |
|---|---|
| 1 Throttle.....                               | FULL POWER (min 5 000 rpm)                                  |
| 2 Flaps .....                                 | UP (when clear of obstacles,<br>+ve ROC & SPEED > 114 km/h) |
| 3 Throttle ( $\leq 97\%$ ) .....              | REDUCE to FUEL FLOW 20l/h                                   |
| 4 500 ft AGL: “ <b>AUX PUMP</b> ” – OFF ..... | Pressure CHECKED  |

**CLIMB CHECK COMPLETED**

**CRUISE CHECK**

- |                            |  |
|----------------------------|--|
| 1 Altimeter.....           | SET AS REQUIRED  |
| 2 Cruise Power .....       | SET (75 – 85%) [max. 5 500 rpm]<br>(75% [ $\pm 4$ 500 rpm] – 85% [ $\pm 4$ 800 rpm]) |
| 3 Fuel Quantity.....       | CHECKED ( <b>Endurance</b> )   |
| 4 Engine Instruments ..... | <b>GREEN</b>   |

**CRUISE CHECK COMPLETED**

**DESCENT CHECK**

- |                             |           |
|-----------------------------|-----------|
| 1 ATIS (if available) ..... | NOTED     |
| 2 Approach Briefing .....   | COMPLETED |
| 3 Avionics.....             | SET       |
| 4 Cabin & PAX .....         | SECURED   |

**DESCENT CHECK COMPLETED**

**APPROACH CHECK**

- |                                       |                                 |
|---------------------------------------|---------------------------------|
| 1 Altimeter.....                      | SET QNH ( <b>D/W Altitude</b> ) |
| 2 Throttle.....                       | 4 000 rpm                       |
| 3 Fuel “ <b>AUX PUMP</b> ” – ON ..... | Pressure CHECKED                |
| 4 Fuel Quantity.....                  | CHECKED ( <b>Endurance</b> )    |
| 5 Engine Instruments .....            | <b>GREEN</b>                    |

**APPROACH CHECK COMPLETED**

**FINAL CHECK**

- |               |                 |
|---------------|-----------------|
| 1 Speed.....  | 110 km/h        |
| 2 Power.....  | $\pm 2$ 500 rpm |
| 3 Flaps ..... | SET FOR LANDING |

**FINAL CHECK COMPLETED**

## AFTER LANDING CHECK

- |                                  |                  |
|----------------------------------|------------------|
| 1 Transponder.....               | SELECT “SBY”     |
| 2 Fuel “ <b>AUX PUMP</b> ” ..... | OFF              |
| 3 Flaps .....                    | UP               |
| 4 Elevator Trim.....             | SET FOR TAKE OFF |

## AFTER LANDING CHECK COMPLETED

## PARKING &amp; ENGINE SHUT DOWN

- |  |                              |
|--|------------------------------|
| 1 Parking Brake .....  | SET AS REQUIRED              |
| 2 Throttle.....  | <b>2 000 rpm</b>             |
| 3 COM.....   | MONITOR 121.50               |
| 4 AV (Avionics Master) .....                                 | OFF                          |
| 5 Electrical Consumers ( <b>except ACL</b> ) .....           | OFF                          |
| 6 Throttle.....  | IDLE                         |
| 7 Ignition Switch ( $\pm$ 2 minutes after the landing) ..... | <b>OFF &amp; KEY REMOVED</b> |
| 8 Master Switch .....  | OFF                          |
| 9 ACL (Anti-Collision Light) .....                           | OFF                          |
| 10 Flight Data & Aircraft Log.....                           | NOTED                        |

## PARKING &amp; ENGINE SHUT DOWN CHECK COMPLETED

## EMERGENCY

- i “**Lane A**” or “**Lane B**” steady ON: ..... land ASAP
- ii “**Lane A**” flashing ON: ..... set 3 000 rpm / Ignition Switch “**B**” / “**LANE A**” should light up / Ignition Switch “**A/B**” / warning lights **OFF**
- iii “**Lane B**” flashing ON below 5 000 ft AGL:.... land ASAP
- iv “**Lane B**” flashing ON above 5 000 ft AGL: ... set 4 000 rpm / speed > 140 km/h / Ignition Switch “**B**” (for 2 sec) / then continue as below
  - iv-1 if prop stopped: perform re-start (see page 1, *lower half*)
  - iv-2 if prop wind milling: ignition switch on “A”►“B”►“A/B”, check voltage >13.2 V

Important Data for LightWing AC4 (according AFM) ..... check T/O performance according AFM

**V<sub>R</sub>** (Rotating speed) ..... **95 km/h**  
**V<sub>x</sub>** (Best angle of climb speed)..... **85 km/h**  
**V<sub>y</sub>** (Best rate of climb speed)..... **108 km/h**  
**V<sub>A</sub>** (Manoeuvring speed)..... **176 km/h**  
**V<sub>G</sub>** (Best glide speed) (**clean**)..... **110 km/h**  
**V<sub>NO</sub>** (Max. structural speed)..... **176 km/h**  
**V<sub>NE</sub>** (Never exceed speed)..... **210 km/h**  
**V<sub>FE</sub>** (Max. flaps extend speed) .... **165 km/h**  
**V<sub>s</sub>** (Stalling speed - clean)..... **82 km/h**  
**V<sub>so</sub>** (Stalling speed – full flap) ..... **76 km/h**  
**Max. Crosswind** ..... **10 kt**  
**Service Ceiling**..... **12 000 ft**

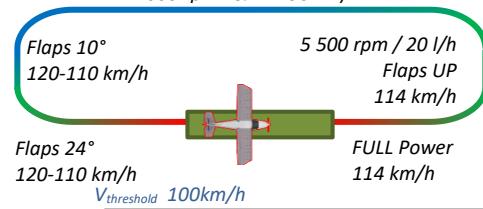
Electrical system: ..... 12 V DC  
Engine:100 PS – fuel injection Rotax 912iS Sport

**Weights**  
**MTOW** ..... 600 kg  
**Empty weight** ..... 386 kg  
**Max. useful load**..... 214 kg  
  
**Fuel (MOGAS 95 / 98)**  
**Max. capacity** ..... 94 l  
**Usable fuel**..... 90 l  
**Fuel flow (average)**..... 15 l/h  
  
**Oil (15W40 Sport)**  
**Max. capacity** ..... 3.0 l  
**Min. quantity**..... 2.5 l

**Power settings**  
Climb power .....<97% (5 500 rpm, 20 l/h)  
Cruise power..... 75% - 85%  
(4 500 – 4 800 rpm)

**Circuit** .....(Power, Configuration, Speed)

4 000 rpm & < 150 km/h



Corrections: Power settings added