evektor SportStar Start-up checklist

START-UP

Before engine starting

1.	Weight & CofG	check
2.	Pre-flight	checks
3.	Safety harnesses	check, fasten
4.	Control stick	full & free
5.	Rudder pedals	firm
6.	Wing flaps function	check
7.	Elevator trim	check & set
8.	Parking brake	OFF
9.	Brakes	pressure check
10.	Ignition	OFF
11.	Canopy	close & latch

Engine starting

1.	Master switch	ON
2.	Fuel gauges	check quantity
3.	Fuel tap	ON
4.	Electric fuel pump	ON
5.	Fuel pressure	Check
6.	Throttle	idle
7.	Choke	set
8.	Beacon/strobes	ON
9.	Toe brakes	APPLY
10.	Park brake	OFF
11.	'CLEAR PROP!"	
12.	Ignition	START

CAUTION *Activate starter for 10 sec. maximum, then let it cool down for 2 minutes. After starting engine, do not carry out sudden rpm changes, after power decrease wait for about 3 secs in order to reach constant rpm before re-acceleration.*

13.	Throttle	set (see NOTE
14.	Oil pressure within 10 secs	

NOTE *After starting engine, set throttle for smooth running at 2000 RPM. Check oil pressure - must increase within 10 secs. Ensure oil pressure is stabilised over 2 bar (29 PSI).*

15.	Electric fuel pump	OFF (see NOTE)

NOTE *Electric fuel pump operates during engine starting only. It is not intended for continuous operation.*

16.	Engine instruments	check
17.	Choke	as needed
18.	Engine warming up	(see NOTE)

NOTE *Begin warm at 2000 RPM for about 2 minutes, then continue at 2000-2500 RPM. Warming time depends on outside air temperature until oil temperature reaches 50˚C (122 ˚F).*

19.	Radio /avionics	ON
20.	Other electrical	ON as needed

Before taxiing

1.	Transponder	SBY
2.	Lights (if installed)	as needed
3.	Radio	call

Pre-take off

1.	Controls	FREE
2.	Flap	As needed
3.	Fuel	ON
4.	Park brake	OFF
5.	Throttle friction	As needed
6.	Transponder	ALT
7.	Aim point	SELECT
8.	Wind	NOTE
9.	Full power	Apply gently!

PTO

Basic emergencies & limitations

Emergency & precautionary landing

Emergency landing - with engine STOPPED

1.	Airspeed	57 KIAS
2.	Wind direction	check
3.	Landing area	choose
4.	Safety harness	tighten
5.	Flaps	as needed
6.	Airspeed	60 KIAS & flap
7.	Radio emergency call	if possible
8.	Fuel tap	OFF
9.	Ignition	OFF
10.	Master switch	OFF before ldg

Safety landing - with engine RUNNING

1.	Wind direction	check
2.	Landing area	choose
3.	Airspeed	57 KIAS no flap
4.	Radio emergency call	if poss
5.	Safety harness	tighten
6.	Flaps (30˚)	Stage 2
7.	Airspeed	60 KIAS
8.	Landing	carry out

Performance limitations

Max rpm	5800 (max 5 mins)
Max continuous rpm	5500
Ignition L&R check	4000
Idle on ground	1700-1900
Max EGT	880˚C (760-800).
Max CHT	130˚C (95-100).
Min oil temp for take off	50˚C (85-110)
Max oil temperature	130˚.
Min oil pressure	0.8 bar/*12 psi*
Normal oil pressure	2-5 bar/*30-75 psi*
Vne (Never exceed)	146 kts
Vno (max structural)	105 kts
Va (manouvre)	86 kts
Vy (Best climb rate, no flap)	63 kts
Vy (Best climb rate, 15 flap)	56 kts
Vf (Max flap speed)	70 kts.
Best glide (no flap)	57 kts
Vs (Stall, no flaps)	42 kts
Vso (Stall, full flap)	36 kts

Other emergency procedures

Carburettor icing

NOTE *The Rotax 912 is not prone to icing. However, carburettor icing can occur in certain conditions of humidity and temperature. Carburettor icing mostly happens during descent and approach for landing (low engine RPM). Carburettor icing shows itself by engine power decreasing, by engine temperature increasing and possibly rough running*

1.	Recommended procedure for engine power recovery is as follows:	
2.	Carburettor heat	ON (pull OUT)
3.	Throttle	set first IDLE then CRUISE power again

NOTE *Ice in the carburettor should be removed by decrease and re-increase of engine power.*

4. If engine power is not successfully regained, then carry out landing at the nearest suitable airport or carry out precautionary landing

Airplane parking

1.	Ignition	OFF
2.	Master switch	OFF
3.	Fuel tap	OFF
4.	Park brake	set (see NOTE)
5.	Canopy	close & lock

NOTE *It is recommended to use parking brake for short-term parking only, between flights during a flight day. After ending the flight day and/or at low temperatures, do not use parking brake but use the wheel chocks instead.*

© 2009 Evektor Australia, PO Box 237, Black Rock, VIC 3193, Australia
Phone/fax +61 3 9592 3101 E-mail info@evektor.com.au Web www.evektor.com.au