

Flight test report: EN 926-2:2013+A1:2021* and NfL 2-565-20

Manufacturer	Flow Paragliders	Certification number	PG_2201.2023
Address	26 kalmia Court 4221 QLD Elanora Australia	Flight test	07.09.2023
Glider model	PANORAMA 2 39	Classification	B
Serial number	FP3900523	Representative	None
Trimmer	Closed	Place of test	Villeneuve
Folding lines used	no		
Test pilot	Claude Thurnheer	Alexandre Jofresa	
Harness	Advance Thun AG Success 4 M	Woody Valley srl Wani Light 2 S	
Harness to risers distance (cm)	43	41	
(cm) Distance between risers	55	55	
(cm) Total weight in flight (kg)	90	190	
1. Inflation/Take-off	B		
Rising behaviour	Smooth, easy and constant rising	A Easy rising, some pilot correction is required	B
Special take off technique required	No	A No	A
2. Landing	A		
Special landing technique required	No	A No	A
3. Speed in straight flight	B		
Trim speed more than 30 km/h	Yes	A Yes	A
Speed range using the controls larger than 10 km/h	Yes	A Yes	A
Minimum speed	Less than 25 km/h	A 25 km/h to 30 km/h	B
4. Control movement	A		
Max. weight in flight up to 80 kg			
Symmetric control pressure / travel	not available	0 not available	0
Max. weight in flight 80 kg to 100 kg			
Symmetric control pressure / travel	Increasing / greater than 60 cm	A not available	0
Max. weight in flight greater than 100 kg			
Symmetric control pressure / travel	not available	0 Increasing / greater than 65 cm	A
5. Pitch stability exiting accelerated flight	0		
Dive forward angle on exit	not available	0 not available	0
Collapse occurs	not available	0 not available	0
6. Pitch stability operating controls during accelerated flight	0		
Collapse occurs	not available	0 not available	0
7. Roll stability and damping	A		
Oscillations	Reducing	A Reducing	A
8. Stability in gentle spirals	A		
Tendency to return to straight flight	Spontaneous exit	A Spontaneous exit	A

9. Behaviour exiting a fully developed spiral dive		A		
Initial response of glider (first 180°)	Immediate reduction of rate of turn	A	Immediate reduction of rate of turn	A
Tendency to return to straight flight	Spontaneous exit (g force decreasing, rate of turn decreasing)	A	Spontaneous exit (g force decreasing, rate of turn decreasing)	A
Turn angle to recover normal flight	Less than 720°, spontaneous recovery	A	Less than 720°, spontaneous recovery	A
10. Symmetric front collapse		A		
Approximately 30 % chord				
Entry	Rocking back less than 45°	A	Rocking back less than 45°	A
Recovery	Spontaneous in less than 3 s	A	Spontaneous in less than 3 s	A
Dive forward angle on exit Change of course	Dive forward 0° to 30° / Keeping course	A	Dive forward 0° to 30° / Keeping course	A
Cascade occurs	No	A	No	A
Folding lines used	No	A	No	A
At least 50% chord				
Entry	Rocking back less than 45°	A	Rocking back less than 45°	A
Recovery	Spontaneous in less than 3 s	A	Spontaneous in less than 3 s	A
Dive forward angle on exit / Change of course	Dive forward 0° to 30° / Keeping course	A	Dive forward 0° to 30° / Keeping course	A
Cascade occurs	No	A	No	A
Folding lines used	No	A	No	A
With accelerator				
Entry	not available	0	not available	0
Recovery	not available	0	not available	0
Dive forward angle on exit / Change of course	not available	0	not available	0
Cascade occurs	not available	0	not available	0
Folding lines used	Not available	0	Not available	0
11. Exiting deep stall (parachutal stall)		A		
Deep stall achieved	Yes	A	Yes	A
Recovery	Spontaneous in less than 3 s	A	Spontaneous in less than 3 s	A
Dive forward angle on exit	Dive forward 0° to 30°	A	Dive forward 0° to 30°	A
Change of course	Changing course less than 45°	A	Changing course less than 45°	A
Cascade occurs	No	A	No	A
12. High angle of attack recovery		A		
Recovery	Spontaneous in less than 3 s	A	Spontaneous in less than 3 s	A
Cascade occurs	No	A	No	A
13. Recovery from a developed full stall		A		
Dive forward angle on exit	Dive forward 0° to 30°	A	Dive forward 0° to 30°	A
Collapse	No collapse	A	No collapse	A
Cascade occurs (other than collapses)	No	A	No	A

Rocking back	Less than 45°	A	Less than 45°	A
Line tension	Most lines tight	A	Most lines tight	A
14. Asymmetric collapse		B		
Small asymmetric collapse				
Change of course until re-inflation / Maximum dive forward or roll angle	Less than 90° / Dive or roll angle 15° to 45°	A	Less than 90° / Dive or roll angle 15° to 45°	A
Re-inflation behaviour	Spontaneous re-inflation	A	Spontaneous re-inflation	A
Total change of course	Less than 360°	A	Less than 360°	A
Collapse on the opposite side occurs	No (or only a small number of collapsed cells with a spontaneous reinflation)	A	No (or only a small number of collapsed cells with a spontaneous reinflation)	A
Twist occurs	No	A	No	A
Cascade occurs	No	A	No	A
Folding lines used	No	A	No	A
Large asymmetric collapse				
Change of course until re-inflation / Maximum dive forward or roll angle	90° to 180° / Dive or roll angle 15° to 45°	B	90° to 180° / Dive or roll angle 15° to 45°	B
Re-inflation behaviour	Spontaneous re-inflation	A	Spontaneous re-inflation	A
Total change of course	Less than 360°	A	Less than 360°	A
Collapse on the opposite side occurs	No (or only a small number of collapsed cells with a spontaneous reinflation)	A	No (or only a small number of collapsed cells with a spontaneous reinflation)	A
Twist occurs	No	A	No	A
Cascade occurs	No	A	No	A
Folding lines used	No	A	No	A
Small asymmetric collapse with fully activated accelerator				
Change of course until re-inflation / Maximum dive forward or roll angle	not available	0	not available	0
Re-inflation behaviour	not available	0	not available	0
Total change of course	not available	0	not available	0
Collapse on the opposite side occurs	not available	0	not available	0
Twist occurs	not available	0	not available	0
Cascade occurs	not available	0	not available	0
Folding lines used	Not available	0	Not available	0
Large asymmetric collapse with fully activated accelerator				
Change of course until re-inflation / Maximum dive forward or roll angle	not available	0	not available	0
Re-inflation behaviour	not available	0	not available	0
Total change of course	not available	0	not available	0
Collapse on the opposite side occurs	not available	0	not available	0
Twist occurs	not available	0	not available	0
Cascade occurs	not available	0	not available	0

Folding lines used	Not available	0	Not available	0
15. Directional control with a maintained asymmetric collapse	A			
Able to keep course	Yes	A	Yes	A
180° turn away from the collapsed side possible in 10 s	Yes	A	Yes	A
Amount of control range between turn and stall or spin	More than 50 % of the symmetric control travel	A	More than 50 % of the symmetric control travel	A
16. Trim speed spin tendency	A			
Spin occurs	No	A	No	A
17. Low speed spin tendency	A			
Spin occurs	No	A	No	A
18. Recovery from a developed spin	B			
Spin rotation angle after release	Stops spinning in 90° to 180°	B	Stops spinning in less than 90°	A
Cascade occurs	No	A	No	A
19. B-line stall	0			
Change of course before release	not available	0	not available	0
Behaviour before release	not available	0	not available	0
Recovery	not available	0	not available	0
Dive forward angle on exit	not available	0	not available	0
Cascade occurs	not available	0	not available	0
20. Big ears	A			
Entry procedure	Dedicated controls	A	Dedicated controls	A
Behaviour during big ears	Stable flight	A	Stable flight	A
Recovery	Spontaneous in less than 3 s	A	Spontaneous in less than 3 s	A
Dive forward angle on exit	not available	0	Dive forward 0° to 30°	A
21. Big ears in accelerated flight	0			
Entry procedure	not available	0	not available	0
Behaviour during big ears	not available	0	not available	0
Recovery	not available	0	not available	0
Dive forward angle on exit	not available	0	not available	0
Behaviour immediately after releasing the accelerator while maintaining big ears	not available	0	not available	0
22. Alternative means of directional control	A			
180° turn achievable in 20 s	Yes	A	Yes	A
Stall or spin occurs	No	A	No	A
23. Any other flight procedure and/or configuration described in the user's manual	0			
Procedure works as described	not available	0	not available	0
Procedure suitable for novice pilots	not available	0	not available	0
Cascade occurs	not available	0	not available	0

24. Comments of test pilot