



Service documents



03-2018

## SERVICE MANUAL

The latest version of service manual is available at:  
[www.dudek.eu/en/service-and-inspections/](http://www.dudek.eu/en/service-and-inspections/)

## TECHNICAL INSPECTIONS

Full Inspection is recommended every 24 months or every 150 hours whatever comes first, if not advised otherwise by the inspecting person due to paraglider's condition.

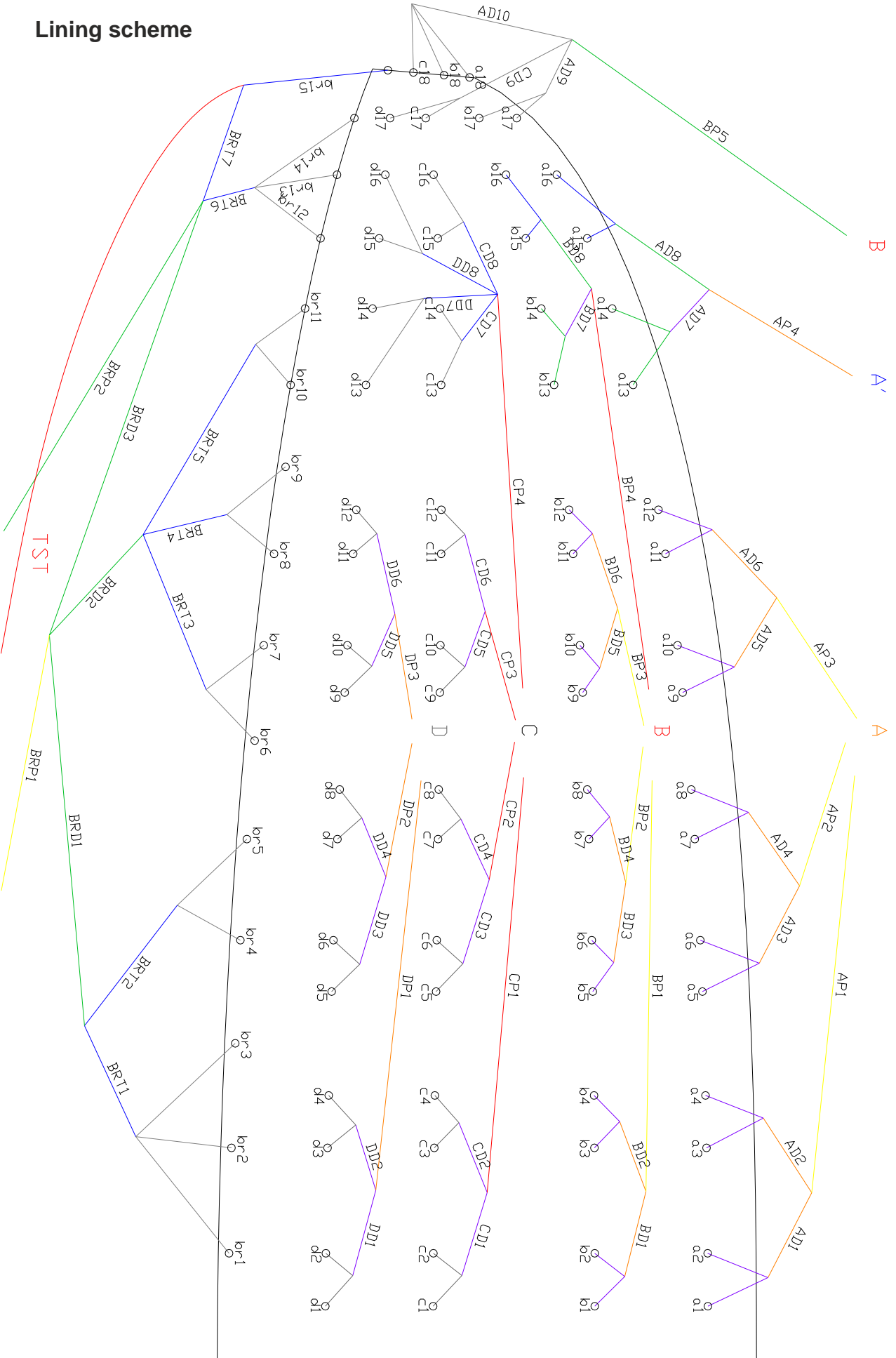
In case of paragliders used commercially (e.g. in schools or tandem flying) a Full Inspection is recommended every 12 months after first 24 months from purchase date or every 100 hours airtime (whatever comes first).

A paraglider can be officially inspected only by the manufacturer or a dealer (authorised to do so).

## TECHNICAL DATA

<b>Hadron</b>	<b>Cabrio</b>
Approval - ULM identification	yes
Number of cells	60
Surface area (flat) [m <sup>2</sup> ]	34,00
Surface area (projected) [m <sup>2</sup> ]	29,68
Span (flat) [m]	14,16
Span (projected) [m]	11,62
Aspect Ratio (flat)	5,90
Aspect Ratio (projected)	4,55
Sink rate [m/s]	min = 1,1    + - 0,1m/s
Speed [km/h]	trim = 37; max = 47    + - 2km/h
Max. cord [cm]	296,20
Min. cord [cm]	474,00
Distance pilot to wing [m]	8,93
Total line length [m]	476,50
Total take-off weight [kg]	170 - 300
Weight [kg]	8,5
Lines	Edelrid A-8000U: 050, 090; 7343: 090, 140, 190, 280, 420
Fabric	Dominico tex 41 g/m <sup>2</sup>
	Dominico tex 34 g/m <sup>2</sup>
	Porcher Hard 40 g/m <sup>2</sup>
	SR Scrim, SR Laminate 180 g/m <sup>2</sup>
Risers	PASAMON - Bydgoszcz, Polska

# Lining scheme



## Length of the lines

### Hadron-34 Cabrio

The tables/ Tables/ Tabele:

The individual lengths and type of line

La longueur et le type de chaque ligne

Die einzelnen Leinlängen und Art.

Długości i rodzaj poszczególnych linek

	a	b	c	d	br
1	628	622	628	634	1633
2	570	565	559	565	1311
3	581	576	572	577	1173
4	618	612	621	627	1064
5	608	601	609	615	1047
6	556	552	546	552	1027
7	549	541	538	545	889
8	585	579	587	593	929
9	561	552	558	565	882
10	506	500	494	499	810
11	505	492	491	500	813
12	517	508	515	522	1002
13	932	899	898	914	799
14	827	812	792	798	674
15	815	760	735	752	1027
16	811	760	733	734	
17	602	578	515	572	
18	876	874	902		

The total lengths (with risers)

Longueur des suspentes (avec élévateurs)

Gesamtlänge der Leinen (mit Tragegurten)

Sumaryczna długość linek (z ta mami)

	a	b	c	d	br
1	8377	8281	8426	8566	9669
2	8320	8223	8356	8497	9347
3	8297	8201	8333	8475	9210
4	8334	8238	8382	8525	9040
5	8304	8210	8349	8493	9022
6	8253	8160	8287	8429	8845
7	8236	8147	8271	8413	8707
8	8272	8185	8320	8460	8602
9	8232	8151	8279	8416	8555
10	8178	8100	8215	8349	8537
11	8139	8069	8180	8309	8540
12	8152	8086	8204	8331	8365
13	8055	8004	8108	8204	8162
14	7950	7916	8002	8088	8037
15	7872	7856	7931	8003	7890
16	7868	7857	7929	7986	7680
17	7683	7659	7704	7760	8080
18	7611	7610	7637		

	AD	BD	CD	DD	BRT
1	1398	1385	1083	1091	1512
2	1364	1352	1046	1058	1451
3	1327	1309	1021	1034	1873
4	1317	1306	1014	1024	1727
5	1250	1222	958	976	1781
6	1213	1199	926	934	778
7	1054	988	813	893	280
8	988	980	799	855	
9	1271		1379		
10	926				

	AP	BP	CP	DP	BRD
1	6387	6309	6740	6865	3139
2	6404	6335	6744	6868	2560
3	6457	6413	6787	6899	3199
4	6090	6137	6412		
5		5819			

BRP1	3426
BRP2	6400
TST	7070

Technora A 8000U-050:



Technora A 8000U-090:



Technora 7343-090-005:



Technora 7343-140-006:



Technora 7343-190-024:



Technora 7343-280-011:



Technora 7343-280-018:



Technora 7343-420-041:

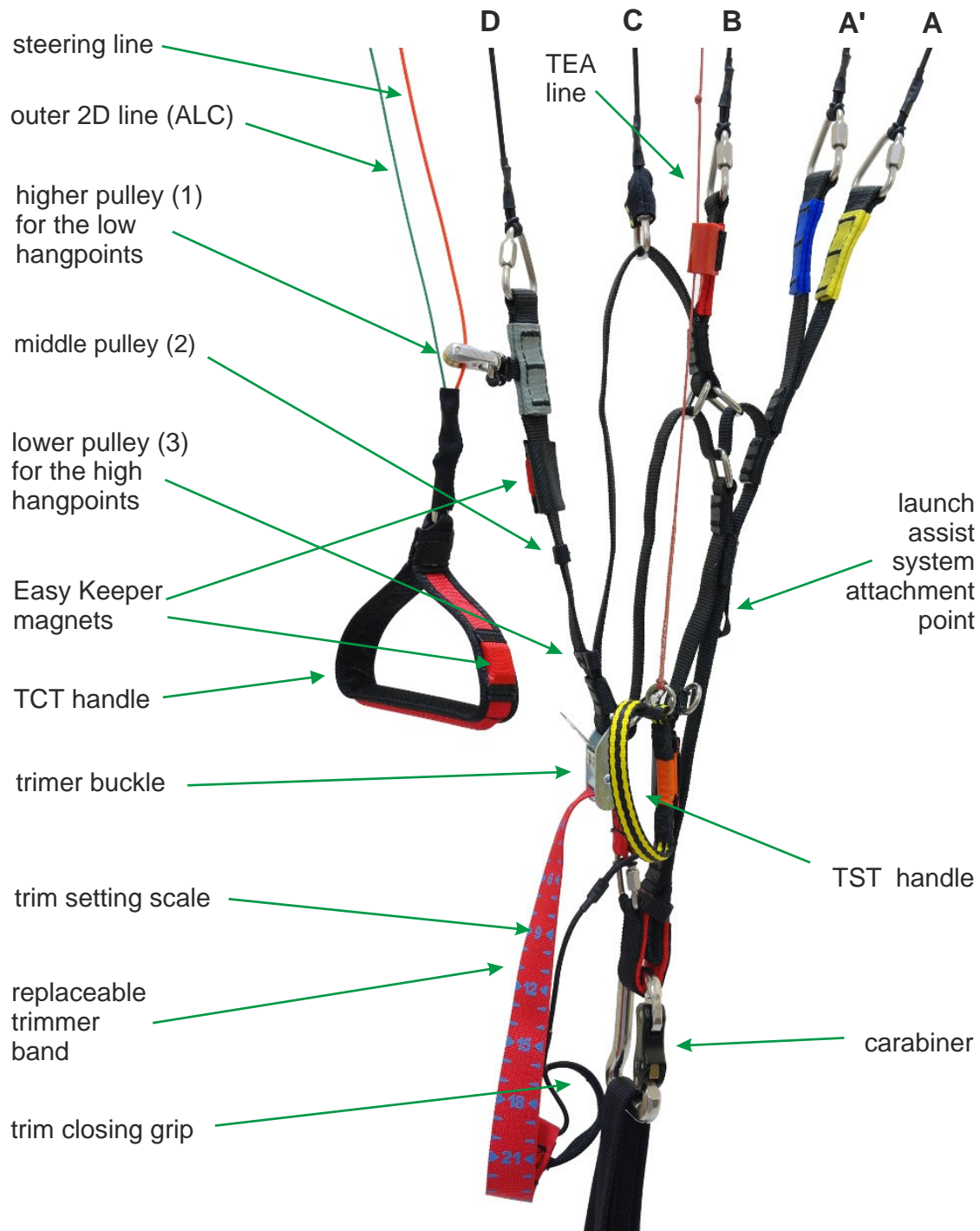


TSL00-190-171

XXXX

Total suspension lines length, measured from the lower surface of the canopy to the inside edge of the maillon (tolerancy +/- 10 mm)

## Risers





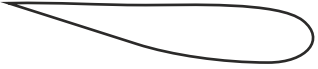



---

### Other informations:

- number of risers: 4 (with A riser split into A and A')
- trimmers: yes

## Trimmers influence on the aerofoil

<p>Trimmers closed</p> <p>Minimal speed and minimal sink less reflex</p>  <p>Length of the risers:</p> <p>A - 460 mm A' - 460 mm B - 445 mm C - 420 mm D - 395 mm</p> 	<p>Trimmers neutral</p> <p>More reflex</p>  <p>Length of the risers:</p> <p>A - 460 mm A' - 460 mm B - 460 mm C - 460 mm D - 460 mm</p> 	<p>Trimmers fully opened</p> <p>Maximum speed and sink Maximum feflex</p>  <p>Length of the risers:</p> <p>A - 460 mm A' - 460 mm B - 500 mm C - 575 mm D - 650 mm</p> 
--	---	---

Total risers length measured without the maillons (tolerancy +/- 5 mm)

# Components

## List of components and materials for Hadron Cabrio

Name of product	Dimension	Supplier	Location of use								
			Top surface			Bottom surface			Ribs		Vector –
			Others	front	Top surface	front	Bottom surface	suspended	unsuspended	Diagonals	stripes
<b>CANOPY</b>											
Dominico DOKDO-30DMF(WR)	40gr	Domico Textile		X	X						
Dominico DOKDO-20DMF(WR)	34gr	Domico Textile				X	X				
Porcher 09017 1580 E29	38gr	NCV industries						X	X	X	
Porcher 09092 1520 001 80g	80gr	NCV industries	Reinforcements								
Porcher 06383 1450 X20004	170gr	NCV industries	Reinforcements								
Porcher 02420 1450 X15A	180gr	NCV industries	Reinforcements								
Nylon Fibre 2,0mm	fi 2,0mm	Zarys	Reinforcements on ribs								
Nylon Fibre 2,4mm	fi 2,4mm	Zarys	Reinforcements on ribs								
Webbing 57 501/12,5	12,5mm	GUTH & WOLF	Suspension points			& Edging on intake					
Machine thread Durafix size 60	60	Durak	Canopy sewing								
<b>LINES</b>											
Technora A-7343-090	1,2mm/90 daN	Edelrid	X								
Technora A-7343-140	1,3mm/140 daN	Edelrid	X				X				
Technora A-7343-190	1,5mm/190 daN	Edelrid	X								
Technora A-7343-280	1,8mm/280 daN	Edelrid	X	X							
Technora A-7343-420	2,3mm/420 daN	Edelrid			X						
Technora A-8000/U-50	0,5mm/50 daN	Edelrid	X								
Technora A-8000/U-090	0,8mm/90 daN	Edelrid	X								
Machine thread Durafix size 60	60	Durak	Lines sewing								
<b>RISERS &amp; METAL PARTS</b>											
Webbing TS548/20	20mm	Pasamon	Riser main								
Webbing TS548/25	25mm	Pasamon	Riser main								
Webbing TS548/10	10mm	Pasamon	Riser main								
Webbing TS555/25	25mm	Pasamon	Riser main								
Webbing TE330/20	20mm	Pasamon	Trimer tape								
Rubber O-rings 16x2mm	16x2mm	ABS Serwis	For lines protection								
Neodymium magnet 20x10x2[N38]	16x16x4mm	Biegun	Brake handle magnet								
Neodymium magnet 16x16x4[N38]	16x16x4mm	Biegun	Riser magnet								
Rolls - AustriAlpin	9mm	AustriAlpin	Accelerator pulley						Brake pulley		
Delta Inox MRDI03.5	fi 3,5mm	Pequet	Maillon								
Delta Inox MRDI04.0	fi 4,0mm	Pequet	Maillon								
Square Inox MRCI03.5	fi 3,5mm	Pequet	Square								
Brummel Hook Be 180	25mm	Finsterwalder	Accelerator line								
Rectangle inox - welded	25/4mm	Sow-Yacht	Riser construction								
Ring inox - welded	13/3mm	Sow-Yacht	Riser construction								
Metal Ring JG14001-3-8	8/3mm	Airwill Industries	Riser construction								
Buckle regulator 25mm	25mm	NINGBO	Buckle trimer								
Cleat DP red	25x14mm	Backer	Riser construction								
Machine thread Gral size 20	20	COATS	Riser sewing								