



ILLUSION²



SERVICE MANUAL



Contents

SERVICE MANUAL	1
OVERALL LINE LENGTHS ILLUSION 2	3
MEASURING FULL LINE LENGTHS	4
RISER	5
LINE PLANS	6
LINE PLAN ILLUSION 2	7
MATERIALS	8
LENGTH OF LINE	9
TECHNICAL DATA	10



OVERALL LINE LENGTHS ILLUSION 2

All overall lengths are measured from riser's main attachment point up to the tissue of canopy on attachment points. Brake lines are measured from the Swivel on brake handle up to the trailing edge.

* - these lines are measured inclusive bunching system line

Illusion 2 - 22 (XS)

Center	A	B	C	D	Brakes
1	6847	6730	6849	6970	7159
2	6786	6673	6790	6911	6950
3	6803	6694	6809	6926	6807
4	6769	6669	6780	6893	6743
5	6728	6631	6743	6845	6672
6	6747	6658	6758	6855	6533
7	6673	6610	6678	6755	6484
8	6576	6537	6597	6666	6506
9	6524	6493	6544	6590	6447*
10	6489	6467	6505	6541	6384*
11	6245	6202	6266		6313*
12	6174				6289*
13	6120	6095	6105	6132	6306*

Illusion 2 - 24 (S)

Center	A	B	C	D	Brakes
1	7133	7014	7139	7266	7473
2	7068	6951	7076	7202	7248
3	7086	6970	7095	7217	7108
4	7051	6950	7065	7184	7038
5	7011	6910	7020	7133	6956
6	7027	6932	7037	7138	6811
7	6956	6891	6961	7040	6772
8	6853	6809	6880	6948	6785
9	6796	6761	6820	6869	6730*
10	6760	6731	6777	6806	6664*
11	6505	6462	6531		6585*
12	6432				6562*
13	6374	6349	6360	6390	6576*

Illusion 2 - 26 (M)

Center	A	B	C	D	Brakes
1	7428	7298	7429	7560	7792
2	7358	7233	7362	7496	7561
3	7379	7258	7381	7508	7414
4	7345	7231	7352	7473	7345
5	7297	7187	7305	7419	7263
6	7316	7213	7324	7428	7107
7	7234	7162	7239	7323	7057
8	7125	7082	7153	7228	7076
9	7071	7032	7095	7146	7015*
10	7032	7000	7049	7089	6952*
11	6765	6717	6788		6870*
12	6690				6842*
13	6642	6615	6623	6653	6864*

Illusion 2 - 28 (L)

Center	A	B	C	D	Brakes
1	7715	7586	7720	7856	8102
2	7648	7518	7652	7788	7867
3	7669	7544	7674	7807	7707
4	7631	7514	7640	7766	7631
5	7583	7471	7590	7712	7545
6	7600	7495	7611	7718	7387
7	7518	7444	7522	7606	7337
8	7407	7364	7432	7507	7361
9	7351	7310	7370	7419	7297*
10	7310	7279	7326	7367	7227*
11	7028	6979	7058		7148*
12	6948				7115*
13	6886	6858	6874	6903	7137*

Illusion 2 - 30 (XL)

Center	A	B	C	D	Brakes
1	8029	7897	8037	8178	8465
2	7958	7824	7966	8108	8215
3	7977	7851	7987	8124	8055
4	7940	7822	7951	8083	7975
5	7891	7777	7901	8025	7885
6	7911	7806	7921	8034	7720
7	7824	7751	7830	7919	7670
8	7709	7664	7735	7815	7690
9	7648	7609	7667	7721	7640*
10	7605	7575	7620	7662	7560*
11	7321	7267	7346		7475*
12	7237				7445*
13	7168	7139	7156	7187	7465*

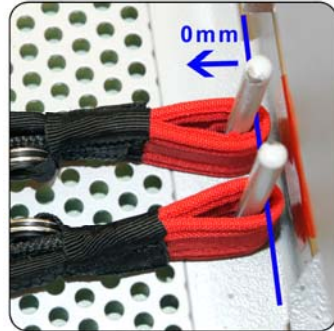
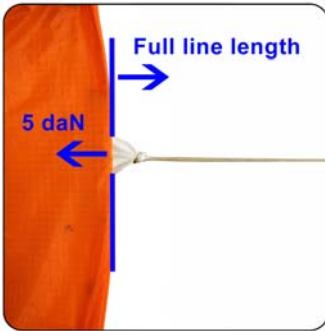
Illusion 2 - 33 (XXL)

Center	A	B	C	D	Brakes
1	8391	8252	8402	8550	8881
2	8314	8177	8324	8476	8615
3	8335	8202	8347	8489	8444
4	8298	8173	8314	8453	8364
5	8244	8125	8258	8392	8268
6	8264	8155	8282	8399	8092
7	8177	8101	8188	8280	8039
8	8055	8010	8084	8173	8058
9	7989	7950	8017	8076	7996*
10	7945	7916	7964	8013	7925*
11	7644	7590	7671		7842*
12	7555				7809*
13	7486	7457	7470	7503	7829*



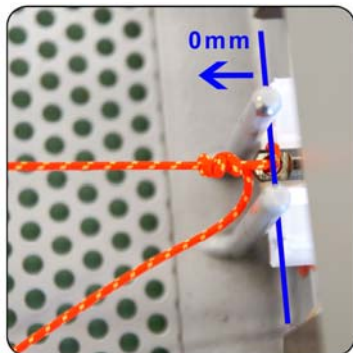
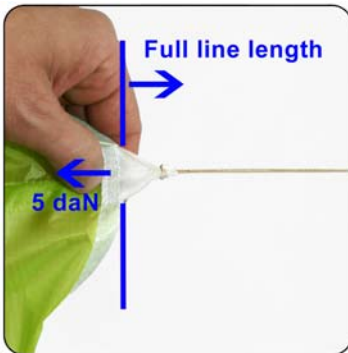
MEASURING FULL LINE LENGTHS

Main lines

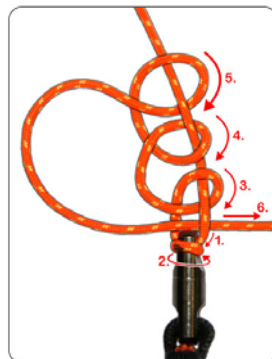
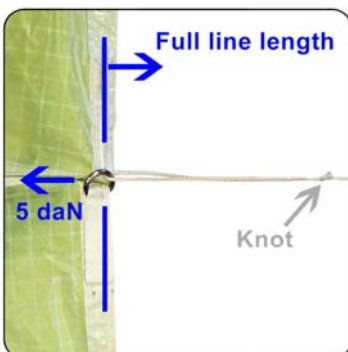


Brakes line

Standard system



Raff system





RISER

Riser lengths Illusion 2 - 22, - 24

	A	A1	B	C
Trim-position	525	525	525	525
Accelerated	405	420	455	525

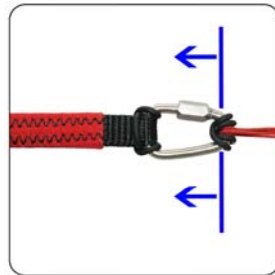
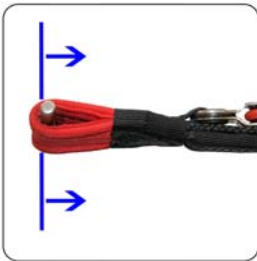
Riser lengths Illusion 2 - 26

	A	A1	B	C
Trim-position	525	525	525	525
Accelerated	380	395	445	525

Riser lengths Illusion 2 -28, - 30, -33

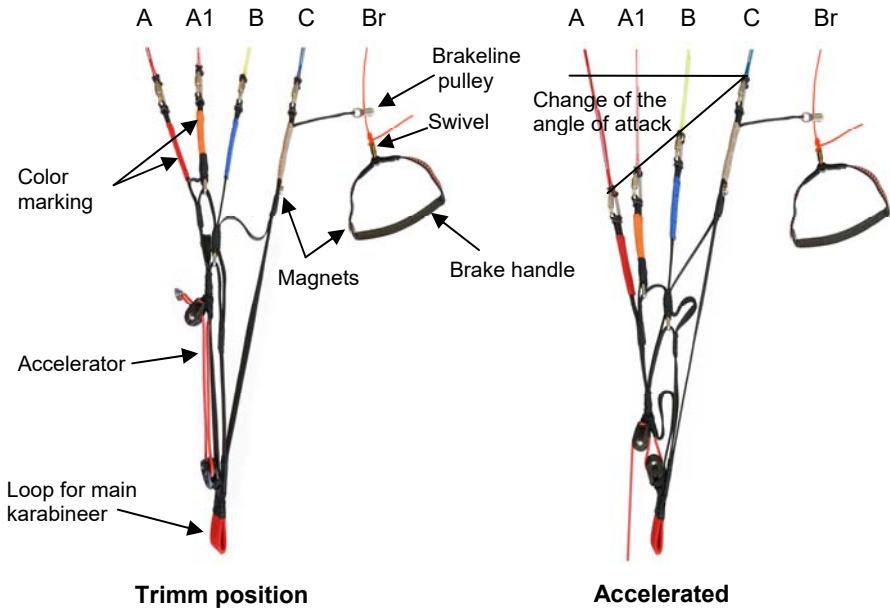
	A	A1	B	C
Trim-position	525	525	525	525
Accelerated	375	390	440	525

The lengths are measured from the main attachment point to the lower edge of rapid links.





Riser



LINE PLANS

Line descriptions

The following printed line plans show the line configurations.

Line types in colors

Aramid/Polyester A-8000U-070

Aramid/Polyester A-7343-075

Aramid/Polyester A-7343-090

Aramid/Polyester A-7343-140

Aramid/Polyester A-7343-190

Aramid/Polyester A-7343-230

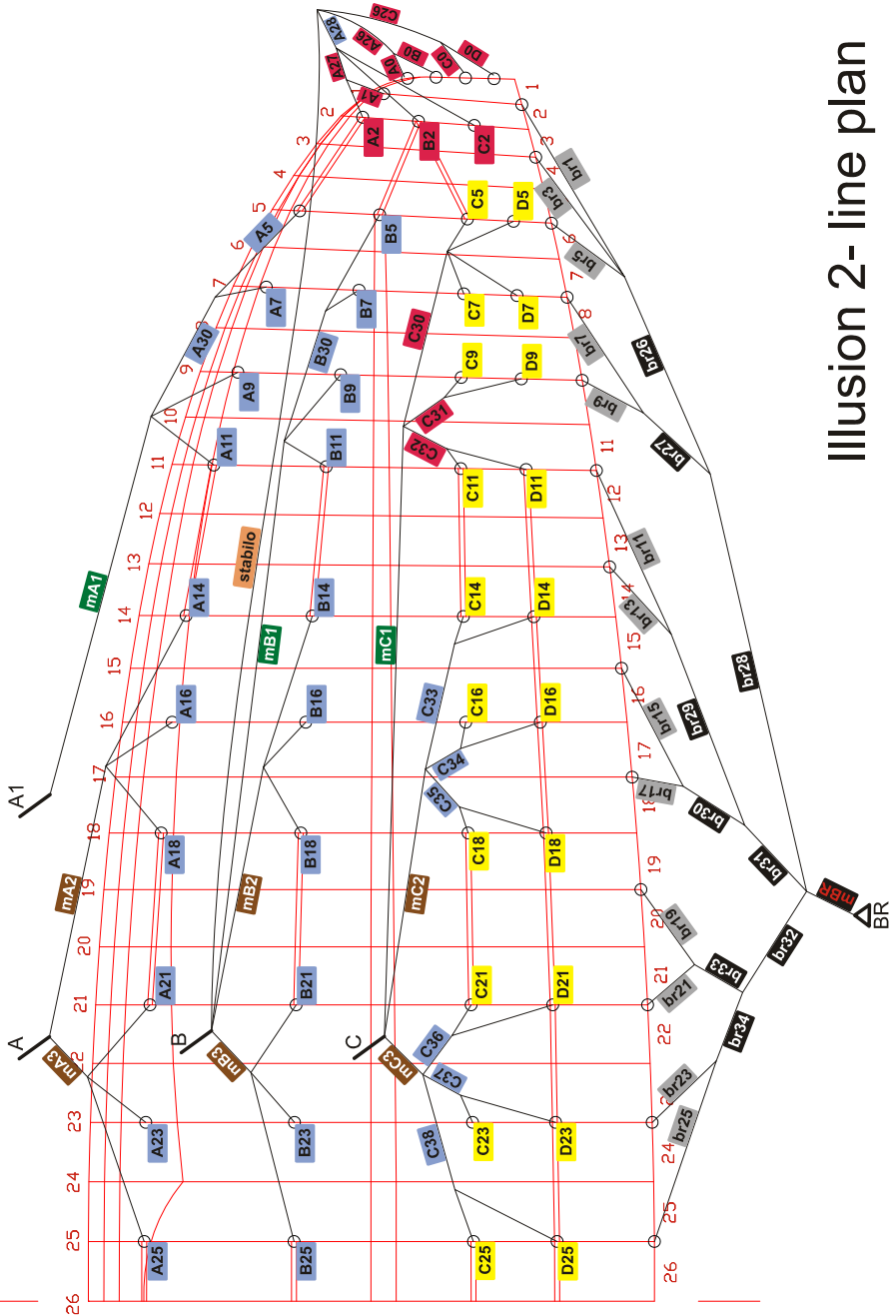
Dynema/Polyester A-7850-080

Dynema/Polyester A-7850-100

Dynema/Polyester A-7950-200



LINE PLAN ILLUSION 2



Illusion 2- line plan



MATERIALS

Canopy Fabric

PORCHER SPORT

Upper surface leading edge - SKYTEX 38 Universal
Upper surface trailing edge - SKYTEX 32 Universal
Bottom surface leading edge - SKYTEX 38 Universal
Bottom surface trailing edge - SKYTEX 27 Classic II
Main ribs, Diagonals - SKYTEX 32 HARD

Lines

EDELRID

Upper Galery C,D - Aramid 8000/U-070, Breaking Load 70 kg
Middle Galery C, Upper Galery Stabiser - Aramid / Polyester 7343-075, Breaking Load 75 kg
Upper Galery A, B, Middle Galery C - Aramid / Polyester 7343-090, Breaking Load 90 kg
Stabilser line - Aramid / Polyester 7343-140 , Breaking Load 140 kg
Main lines mA1, mB1, mC1- Aramid / Polyester 7343-190, Breaking Load 190 kg
Main lines mA2, mA3, mB2, mB3, mC2, mC3 - Aramid / Polyester 7343-230, Breaking Load 230 kg
Upper Galery Brake lines - Dyneema/Polyester A-7850-80 , Breaking Load 80 kg
Middle Galery Brake lines - Dyneema/Polyester A-7850-100 , Breaking Load 100 kg
Main Brake lines - Dyneema/Polyester A-7950-200 , Breaking Load 200 kg

Attachment straps (Canopy)

STAP-POLYESTERBRIDLE 13 mm, Breaking Load 70 kg

Risers

Cousin Trestec

Aramid-Polyester 3455 12 mm

Threads

SERAFIL 60, SYNTON 20

Quick links

NIRO TRIANGLE 200

Rigifoils

Rigifoils - Nitinol 0,6 mm



LENGTH OF LINE

Mentioned line lengths are marked on stretched lines that are pulled under 5 kg.
When replacing a line always compare the symmetry with opposite side.

	22	24	26	28	30	33		22	24	26	28	30	33
A0	29,6	31,1	32,4	33,8	35,4	37,1	D0	29,1	30,6	31,6	33,5	35,2	37,0
A1	26,4	28,0	29,1	30,3	31,7	33,3	D5	72,6	75,0	79,0	82,5	86,2	90,3
A2	33,5	35,4	36,9	38,4	40,2	42,2	D7	77,5	81,1	84,8	88,1	92,1	96,5
A5	67,8	70,9	74,2	77,1	80,5	84,4	D9	74,0	76,9	80,0	83,6	87,0	91,7
A7	71,4	74,6	78,1	81,1	84,8	88,8	D11	72,8	76,0	79,5	82,6	86,4	90,7
A9	182,1	191,6	198,2	206,5	217,4	226,7	D14	75,5	79,2	82,1	85,6	89,9	93,7
A11	191,9	201,8	208,9	217,6	228,9	238,8	D16	74,8	78,4	81,3	84,8	89,0	92,9
A14	199,2	209,4	216,8	225,9	237,6	247,9	D18	76,7	80,5	83,6	87,3	90,9	95,9
A16	197,4	207,6	214,9	223,9	235,6	245,7	D21	83,2	87,1	90,4	94,3	98,9	103,2
A18	201,6	211,9	219,5	228,6	240,5	251,0	D23	81,8	85,7	88,9	92,7	97,3	101,5
A21	204,7	215,2	222,9	232,2	244,2	254,9	D25	84,6	88,9	92,3	96,4	100,3	105,8
A23	203,1	213,5	221,1	230,3	242,3	252,8	br1	56,5	58,5	61,5	64,0	66,5	70,5
A25	209,1	219,8	227,7	237,1	249,4	260,3	br3	55,0	57,0	59,5	62,0	64,5	68,5
A26	99,0	103,0	108,0	111,0	118,0	123,0	br5	57,5	59,5	62,5	65,0	67,5	72,0
A27	40,0	42,0	43,2	45,0	47,5	49,0	br7	58,5	61,0	63,0	66,0	68,0	72,5
A28	68,0	70,0	73,0	76,0	81,0	85,0	br9	64,5	67,5	70,0	73,0	76,0	80,0
A30	106,0	112,0	115,0	120,0	127,0	132,0	br11	63,5	66,5	68,5	72,0	76,0	79,0
B0	27,2	28,4	29,8	31,0	32,5	34,0	br13	61,5	65,0	66,5	70,0	74,0	77,0
B2	68,9	72,7	75,1	78,2	82,2	85,4	br15	66,0	69,5	71,5	75,0	79,0	82,5
B5	65,3	68,3	71,4	74,2	77,5	81,2	br17	80,0	84,0	86,5	91,0	95,5	100,0
B7	68,1	71,2	74,5	77,4	80,9	84,7	br19	68,5	72,0	76,0	78,5	81,5	86,5
B9	178,3	187,6	194,1	202,2	212,9	222,0	br21	75,0	79,0	83,0	86,0	89,5	94,5
B11	185,6	195,3	202,1	210,5	221,6	231,1	br23	69,0	72,0	76,0	78,5	81,5	86,5
B14	190,3	200,2	207,2	215,8	227,1	236,9	br25	90,0	94,5	99,0	102,5	106,5	113,0
B16	187,8	197,6	204,5	213,0	224,2	233,8	br26	94,0	99,0	102,0	107,0	112,0	117,0
B18	191,7	201,6	208,7	217,4	228,7	238,6	br27	100,0	105,0	109,0	114,0	120,0	125,0
B21	194,1	204,1	211,3	220,1	231,6	241,6	br28	235,0	244,0	257,0	267,0	279,0	292,0
B23	191,9	201,8	208,9	217,6	228,9	238,8	br29	110,0	115,0	120,0	125,0	130,0	137,0
B25	197,9	208,1	215,5	224,5	236,2	246,4	br30	110,0	115,0	120,0	125,0	130,0	137,0
B30	106,0	112,0	115,0	120,0	127,0	132,0	br31	235,0	244,0	257,0	267,0	279,0	292,0
C0	26,4	27,9	28,7	30,5	32,1	33,7	br32	235,0	244,0	257,0	267,0	279,0	292,0
C2	75,6	79,6	82,4	85,8	90,2	93,8	br33	129,0	135,0	139,0	146,0	153,0	160,0
C5	69,0	72,2	75,5	78,5	82,0	85,9	br34	149,0	156,0	161,0	169,0	177,0	185,0
C7	73,0	76,4	79,9	83,0	86,7	90,9							
C9	67,3	69,9	72,7	76,0	79,0	83,4	mBR	238+20	250+20	260+20	270+20	282+20	295+20
C11	65,3	68,2	71,3	74,1	77,5	81,4	stabilo	430,0	450,0	470,0	490,0	510,0	535,0
C14	66,0	69,2	71,7	74,8	78,6	81,9	mA1	422,0	440,0	460,0	480,0	500,0	525,0
C16	64,4	67,5	69,9	72,9	76,6	79,8	mA2	422,0	440,0	460,0	480,0	500,0	525,0
C18	65,5	68,9	71,5	74,7	77,7	82,1	mA3	422,0	440,0	460,0	480,0	500,0	525,0
C21	71,6	75,1	77,8	81,2	85,2	88,9	mB1	422,0	440,0	460,0	480,0	500,0	525,0
C23	69,8	73,2	75,8	79,1	83,1	86,6	mB2	422,0	440,0	460,0	480,0	500,0	525,0
C25	72,7	76,5	79,4	82,9	86,2	91,1	mB3	422,0	440,0	460,0	480,0	500,0	525,0
C26	101,0	105,0	110,0	113,0	120,0	125,0	mC1	422,0	440,0	460,0	480,0	500,0	525,0
C30	106,0	112,0	115,0	120,0	127,0	132,0	mC2	422,0	440,0	460,0	480,0	500,0	525,0
C31	117,0	124,0	128,0	133,0	141,0	146,0	mC3	422,0	440,0	460,0	480,0	500,0	525,0
C32	127,0	134,0	138,0	144,0	152,0	158,0							
C33	134,0	141,0	146,0	152,0	160,0	167,0							
C34	134,0	141,0	146,0	152,0	160,0	167,0							
C35	137,0	144,0	149,0	155,0	164,0	170,0							
C36	134,0	141,0	146,0	152,0	160,0	167,0							
C37	134,0	141,0	146,0	152,0	160,0	167,0							
C38	137,0	144,0	149,0	155,0	164,0	170,0							



TECHNICAL DATA

Intermediate Performance EN-B Size		Illusion 2 22 (XS)	Illusion 2 24 (S)	Illusion 2 26 (M)	Illusion 2 28 (L)	Illusion 2 30 (XL)	Illusion 2 33 (XXL)
Zoom flat	[%]	88	92	96	100	104,5	1,095
Area flat	[m2]	21,68	23,70	25,80	28,00	30,58	33,57
Area projected	[m2]	19,10	20,87	22,71	24,66	26,93	29,57
Span flat	[m]	10,67	11,16	11,64	12,13	12,68	13,28
Aspect ratio flat	-	5,25	5,25	5,25	5,25	5,25	5,25
Root cord	[m]	2,53	2,65	2,76	2,88	3,01	3,15
Cells	-	52	52	52	52	52	52
Weight	[kg]	3,95	4,20	4,45	4,80	5,05	5,40
Weight range*	[kg]	55-77	70-90	80-100	89-110	105-130	115-145
Weight range*	[lbs]	121-170	154-198	176-220	196-243	231-287	254-320
Min.speed	[km/h]	23-25	23-25	23-25	23-25	23-25	23-25
Max.speed	[km/h]	37-39	37-39	37-39	37-39	37-39	37-39
Top speed (accelerator)	[km/h]	48-49	48-49	48-49	48-49	48-49	48-49
Glide ratio	-	+10	+10	+10	+10	+10	+10
Min. Sink rate	[m/s]	1,05	1,05	1,05	1,05	1,05	1,05

*pilot equipped = weight naked + cca. 15-20 Kg (33-44 lbs)