MK1 BRIDLE LINE MAINTENANCE

Exposure to heavy loads, regular wear and tear, as well as harsh marine environments such as water, salt, sand, and sun, can lead to stretching, shrinking, or damage in both Bridle lines and Speed System lines.

Bridle lines and Speed Systems require maintenance just like any high performance equipment in racing sports - they must be checked regularly and maintained in the correct trim or the kite will not perform as designed. Check all lines to their specs and replace if necessary.

CHECKING INDIVIDUAL BRIDLE LINES

Bridle Lines that are worn or not to factory specification (+ or - 15mm) must be replaced.
Replacement lines can be ordered individually or as a full set from your shop/dealer.
The kite repair pack includes spare bridle line lengths that can be used to make a short-term replacement bridle line.

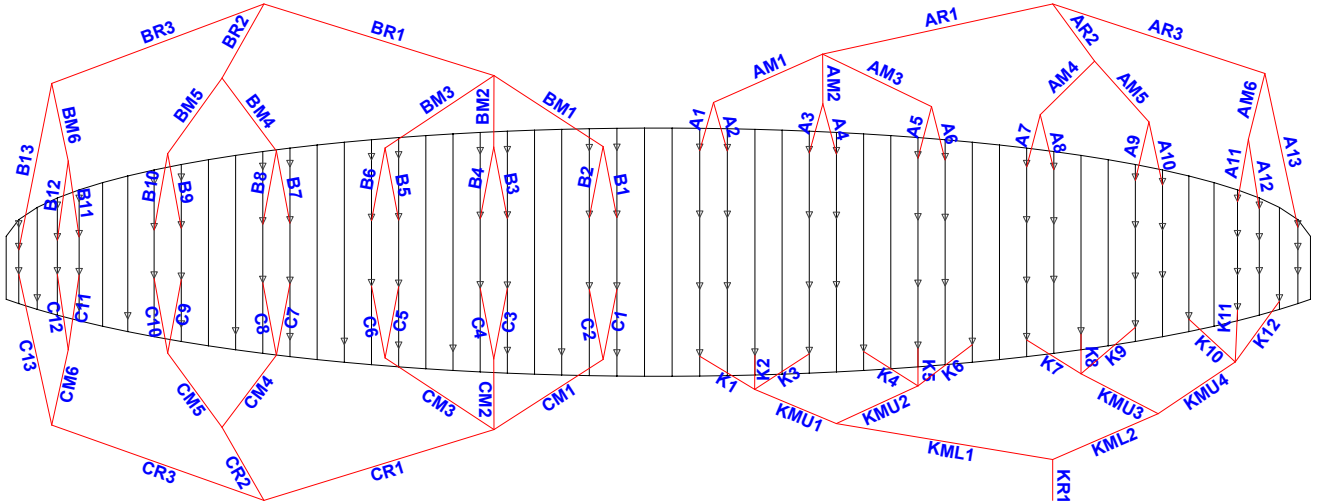
1. Open the kite out in a large space.
2. Inspect all bridle lines for wear/damage. Take note or label lines to be replaced.
3. Use a measuring device to measure the remaining bridles. Ask an assistant to hold the measuring device and bridle line in position to get an accurate measurement.
4. Pull on the line with 5kg of load and note each measurement.
5. Refer to the bridle line measurements and rigging diagrams. Take note or label lines to be replaced.
6. Replace all bridle lines as necessary.

BRIDLE LINE LENGTHS ALL MEASUREMENTS IN MM

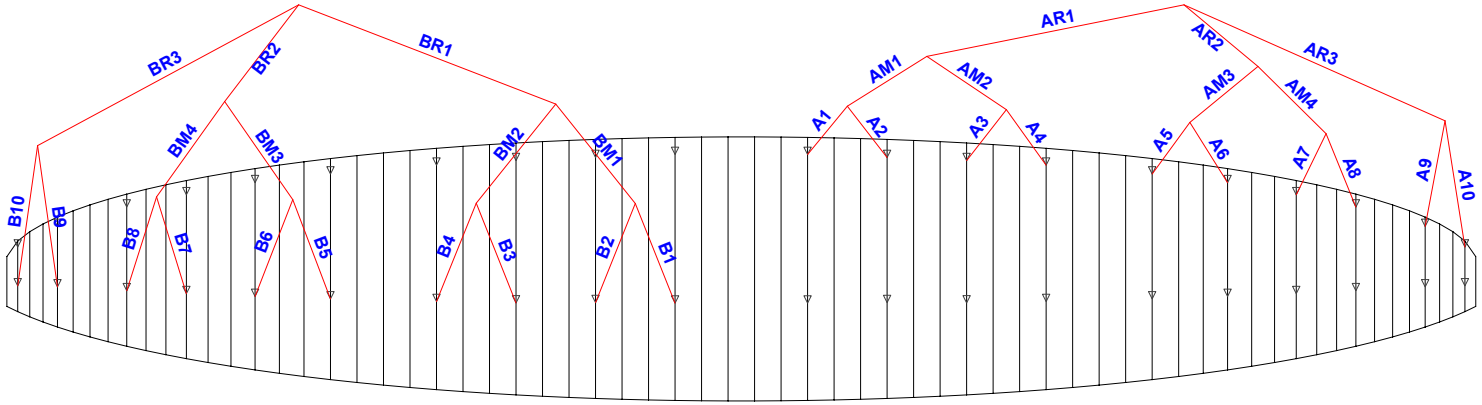
NAME	LINE MATERIAL CODE	8M	9M	LINE MATERIAL CODE	10M	11M	14M	15M	LINE MATERIAL CODE	19M	21M
A1	8001-050	338	358	8001-050	1069	1118	1223	1236	8001-050	1621	1685
A2	8001-050	275	292	8001-050	926	970	1067	1066	8001-050	1380	1434
A3	8001-050	299	318	8001-050	989	1037	1133	1133	8001-050	1466	1513
A4	8001-050	249	265	8001-050	895	940	1030	1032	8001-050	1326	1372
A5	8001-050	220	241	8001-025	845	891	1004	1059	8001-025	928	953
A6	8001-050	187	207	8001-025	668	706	800	850	8001-025	724	743
A7	8001-025	241	269	8001-025	602	639	761	805	8001-025	734	74
A8	8001-025	159	183	8001-025	506	539	653	692	8001-025	635	644
A9	8001-025	149	173	8001-025	881	933	1015	1086	8001-025	146	187
A10	8001-025	105	126	8001-025	766	814	884	961	8001-025	115	153
A11	8001-025	225	253								
A12	8001-025	163	188								
A13	8001-050	766	826								
AM1	8001-090	1900	2010	8001-090	1624	1700	1900	2000	8001-090	2200	2300
AM2	8001-090	1700	1800	8001-090	1433	1500	1700	1800	8001-090	1900	2000
AM3	8001-090	1600	1690	8001-050	1242	1300	1450	1500	8001-050	1600	1700
AM4	8001-050	1100	1160	8001-050	1146	1200	1290	1340	8001-050	1400	1500
AM5	8001-050	900	950								
AM6	8001-070	700	740								
AR1	8001-190	2600	2750	8001-190	2865	3000	3400	3500	8001-190	3186	3385
AR2	8001-130	2800	2960	8001-090	2865	3000	3400	3500	8001-090	3500	3700
AR3	8001-070	2600	2750	8001-070	3343	3500	4000	4100	8001-070	5100	5350
B1	8001-025	303	321	8001-025	1070	1119	1238	1256	8001-025	1598	1661
B2	8001-025	240	255	8001-025	928	972	1087	1091	8001-025	1348	1401
B3	8001-025	265	282	8001-025	1000	1049	1143	1146	8001-025	1436	1481
B4	8001-025	216	231	8001-025	907	953	1041	1056	8001-025	1327	1373
B5	8001-025	190	210	8001-025	871	918	1025	1092	8001-025	976	1004
B6	8001-025	159	178	8001-025	695	735	825	884	8001-025	772	793
B7	8001-025	216	242	8001-025	629	668	800	840	8001-025	780	792
B8	8001-025	159	159	8001-025	531	566	689	725	8001-025	672	682
B9	8001-025	132	154	8001-025	918	972	1050	1132	8001-025	183	226
B10	8001-025	91	110	8001-025	796	845	884	988	8001-025	143	183
B11	8001-025	217	244								
B12	8001-025	157	181								
BM1	8001-050	1900	2010	8001-050	1624	1700	1870	1970	8001-050	2200	2300
BM2	8001-050	1700	1800	8001-050	1433	1500	1700	1800	8001-050	1900	2000
BM3	8001-050	1600	1690	8001-050	3343	1300	1450	1500	8001-050	1600	1700
BM4	8001-050	1100	1160	8001-050	1146	1200	1300	1350	8001-050	1400	1500
BM5	8001-050	900	950								
BM6	8001-050	700	740								
BR1	8001-070	2600	2750	8001-070	2865	3000	3400	3500	8001-070	3200	3400
BR2	8001-070	2800	2960	8001-070	2865	3000	3400	3500	8001-070	3500	3700
BR3	8001-070	2600	2750	8001-050	3343	3500	4000	4100	8001-050	5100	5350
BM1	8001-050	1900	2010	8001-050	1624	1700	1870	1970	8001-050	2200	2300
BM2	8001-050	1700	1800	8001-050	1433	1500	1700	1800	8001-050	1900	2000
BM3	8001-050	1600	1690	8001-050	3343	1300	1450	1500	8001-050	1600	1700
BM4	8001-050	1100	1160	8001-050	1146	1200	1300	1350	8001-050	1400	1500
BM5	8001-050	900	950								
BM6	8001-050	700	740								
BR1	8001-070	2600	2750	8001-070	2865	3000	3400	3500	8001-070	3200	3400
BR2	8001-070	2800	2960	8001-070	2865	3000	3400	3500	8001-070	3500	3700
BR3	8001-070	2600	2750	8001-050	3343	3500	4000	4100	8001-050	5100	5350

NAME	LINE MATERIAL CODE	8M	9M
C2	8001-025	298	317
C3	8001-025	322	343
C4	8001-025	272	290
C5	8001-025	243	265
C6	8001-025	209	231
C7	8001-025	264	294
C8	8001-025	183	208
C9	8001-025	171	196
C10	8001-025	124	146
C11	8001-025	245	274
C12	8001-025	180	206
CM1	8001-050	1900	2010
CM2	8001-050	1700	1800
CM3	8001-050	1600	1690
CM4	8001-050	1100	1160
CM5	8001-050	900	950
CM6	8001-050	700	740
CR1	8001-070	2610	2765
CR2	8001-070	2810	2975
CR3	8001-070	2610	2765
K1	8001-025	814	858
K2	8001-025	609	642
K3	8001-025	483	511
K4	8001-025	651	692
K5	8001-025	495	529
K6	8001-025	462	495
K7	8001-025	586	631
K8	8001-025	397	433
K9	8001-025	347	379
K10	8001-025	408	444
K11	8001-025	311	344
K12	8001-025	364	397
KML1	8001-050	1400	1480
KML2	8001-050	1100	1160
KMU1	8001-050	1300	1380
KMU2	8001-050	1000	1060
KMU3	8001-050	1000	1060
KMU4	8001-050	800	850
KR1	8001-090	2520	2665

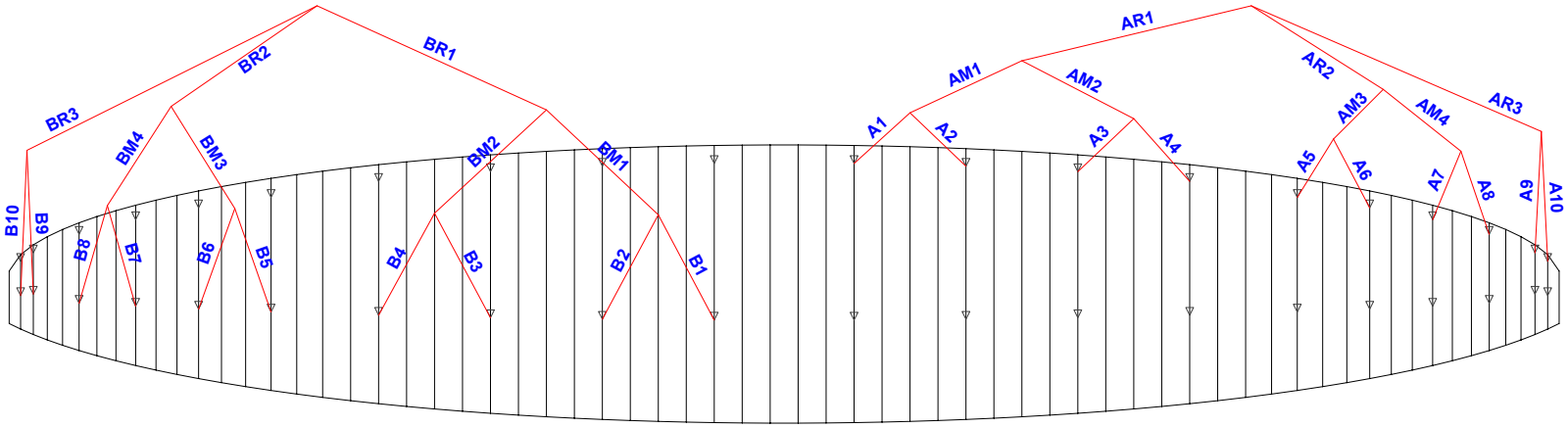
8M/9M
RIGGING DIAGRAM



10M/11M /14M/15M
RIGGING DIAGRAM



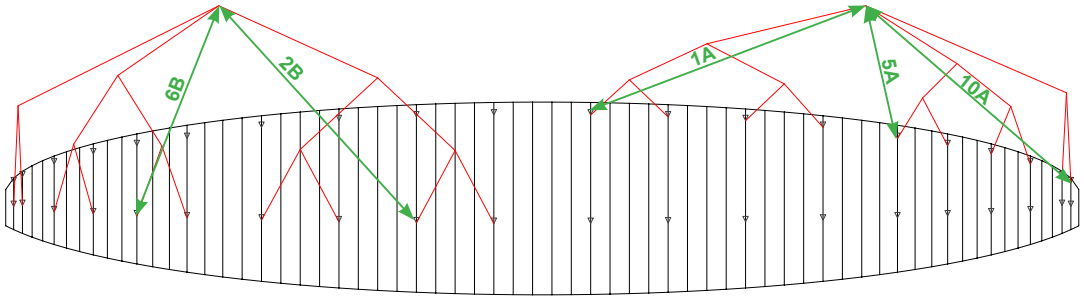
19M/21M
RIGGING DIAGRAM



CHECKING OVERALL BRIDLE LENGTHS

Checking the overall length of bridle lines is another step to ensure the kite is trimmed correctly. Overall bridle lengths should not exceed + or - 20mm.

1. Open the kite out in a large space.
2. Use a measuring device to measure from the top of the Speed System to the bridle line attachment tab on the kite.
3. Ask an assistant to hold the measuring device and Speed System (or attachment tab) to get an accurate measurement.
4. Pull on the bridle with 5kg of load and note each measurement.
5. Refer to the overall bridle line measurements and diagram. Take note or label lines to be replaced.
6. Replace all bridle lines as necessary.
7. It is also possible to shorten a riser bridle line. Refer to the next section.



8m	A	B	C	K
1	4838	4803	4872	6029
2	4775	4740	4809	5824
3	4599	4565	4633	5698
4	4549	4516	4583	5566
5	4420	4390	4454	5410
6	4387	4359	4420	5377
7	4141	4117	4175	5201
8	4059	4038	4094	5012
9	3849	3833	3882	4962
10	3805	3792	3835	4823
11	3525	3518	3556	4726
12	3463	3458	3491	4779
13	3361	3355	3376	

9m	A	B	C	K
1	5118	5081	5159	6378
2	5052	5015	5093	6162
3	4868	4832	4909	6031
4	4815	4781	4856	5892
5	4681	4650	4721	5729
6	4647	4618	4687	5695
7	4389	4363	4430	5511
8	4303	4280	4344	5313
9	4083	4065	4122	5259
10	4036	4021	4072	5114
11	3743	3735	3780	5014
12	3678	3672	3712	5067
13	3571	3565	3592	

10m	A	B
1	5556	5559
2	5413	5417
3	5290	5298
4	5196	5205
5	4955	4978
6	4778	4802
7	4616	4640
8	4520	4542
9	4229	4261
10	4109	4139

11m	A	B
1	5816	5819
2	5668	5672
3	5540	5549
4	5443	5453
5	5194	5218
6	5009	5035
7	4842	4868
8	4742	4766
9	4438	4472
10	4314	4345

14m	A	B
1	6521	6508
2	6365	6357
3	6236	6243
4	6133	6141
5	5857	5875
6	5653	5675
7	5454	5500
8	5346	5389
9	5020	5050
10	4884	4910

15m	A	B
1	6734	6726
2	6564	6561
3	6436	6446
4	6335	6356
5	6062	6092
6	5853	5884
7	5648	5690
8	5535	5575
9	5191	5232
10	5061	5088

19m	A	B
1	7005	6998
2	6764	6748
3	6555	6536
4	6415	6427
5	6031	6076
6	5827	5872
7	5637	5680
8	5538	5572
9	5250	5283
10	5210	5240

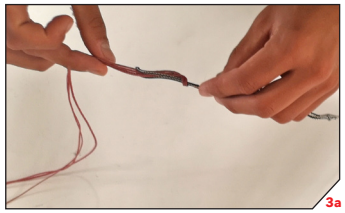
21m	A	B
1	7368	7361
2	7117	7101
3	6901	6881
4	6760	6773
5	6356	6404
6	6146	6193
7	5947	5992
8	5847	5882
9	5542	5576
10	5503	5533

SHORTENING A RISER BRIDLE LINE USING THE ADDITIONAL LOOP TECHNIQUE

If a riser bridle line (AR1/2/3, BR1/2/3, CR1/2/3) has stretched it is possible to shorten by making one or two additional loops in the connection to the Speed System upper lines (4-line system: PA2/PB3/PC1, 2-line system: PA1/PA2).

If the riser bridle line is stretched more than it is possible to compensate with one or two additional loops, we recommend to replace or re-splice to the spec length.

1. Lay out the Speed System and bridles as you would for set up.
2. Disassemble the Speed System to separately access the bridle line groups - refer to the Speed System Pulley Line Replacement sections for how to take the Speed System apart.
3. Open the loop to loop connection between Speed System upper line and riser bridle lines.
4. Put the riser bridle lines that are not affected in length back onto the Speed System upper line.
5. Put the affected riser bridle line onto the Speed System upper line using a double loop as shown. This will shorten the line length by around 1cm to 1.5cm depending on the line thickness. If the affected line needs shortening even more, add a second loop.
6. Tighten onto the Speed System upper line and re-measure to check if the modification has brought it back within tolerance.
7. Close the loop to loop connection by feeding the Speed System line's lower end through its upper loop (i.e. reverse way from opening).
8. Reassemble the Speed System.
9. Repeat for the other side and/or other affected riser bridle lines.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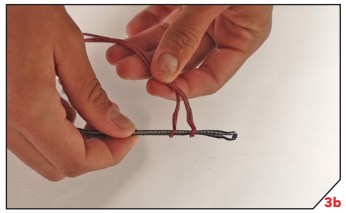
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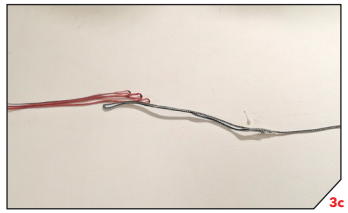
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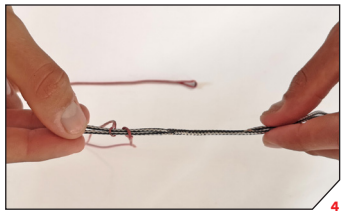
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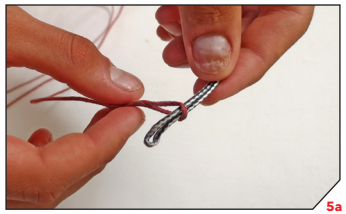
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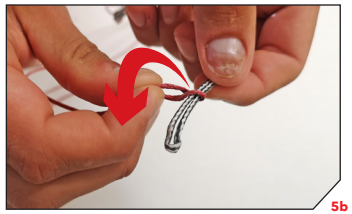
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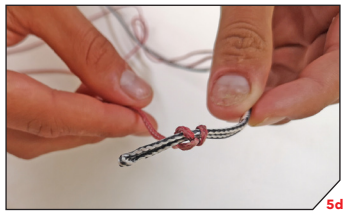
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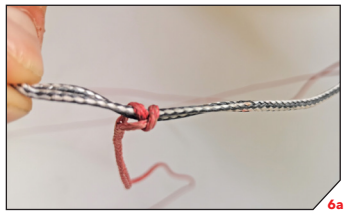
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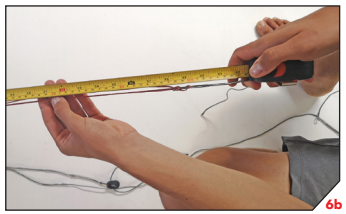
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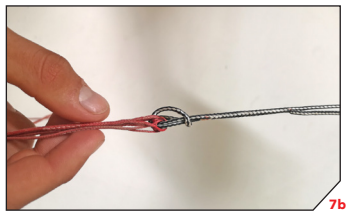
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