

Bryston 10B-LR23 Crossover Resistor Lists

1% resistors from 499R to 301K and the corresponding crossover frequencies for each.
Calculations are based on the following capacitor values:

2nd ORDER FILTER FREQUENCY/RESISTOR TABLES for BRYSTON 10B CROSSOVER

Low pass: C1=44n, C2=22n | High Pass: Ca & Cb=6n8

LOW PASS				HIGH PASS			
FREQ.	Ra,Rb	R1	R2	FREQ.	Ra,Rb	R1	R2
10253 Hz	499R	1K620	3K240	10012 Hz	511R	1K650	3K320
9782 Hz	523R	1K690	3K400	9545 Hz	536R	1K740	3K480
9319 Hz	549R	1K780	3K570	9104 Hz	562R	1K820	3K650
8882 Hz	576R	1K870	3K740	8672 Hz	590R	1K910	3K830
8471 Hz	604R	1K960	3K920	8265 Hz	619R	2K000	4K020
8070 Hz	634R	2K050	4K120	7883 Hz	649R	2K100	4K220
7694 Hz	665R	2K150	4K320	7513 Hz	681R	2K210	4K420
7330 Hz	698R	2K260	4K530	7156 Hz	715R	2K320	4K640
6989 Hz	732R	2K370	4K750	6822 Hz	750R	2K430	4K870
6662 Hz	768R	2K490	4K990	6501 Hz	787R	2K550	5K110
6348 Hz	806R	2K610	5K230	6201 Hz	825R	2K670	5K360
6055 Hz	845R	2K740	5K490	5908 Hz	866R	2K800	5K620
5768 Hz	887R	2K870	5K760	5628 Hz	909R	2K940	5K900
5495 Hz	931R	3K010	6K040	5369 Hz	953R	3K090	6K190
5242 Hz	976R	3K160	6K340	5116 Hz	1K000	3K240	6K490
5016 Hz	1K020	3K320	6K650	4873 Hz	1K050	3K400	6K810
4782 Hz	1K070	3K480	6K980	4651 Hz	1K100	3K570	7K150
4528 Hz	1K130	3K650	7K320	4449 Hz	1K150	3K740	7K500
4336 Hz	1K180	3K830	7K680	4228 Hz	1K210	3K920	7K870
4126 Hz	1K240	4K020	8K060	4029 Hz	1K270	4K120	8K250
3936 Hz	1K300	4K220	8K450	3847 Hz	1K330	4K320	8K660
3734 Hz	1K370	4K420	8K870	3654 Hz	1K400	4K530	9K090
3578 Hz	1K430	4K640	9K310	3480 Hz	1K470	4K750	9K530
3411 Hz	1K500	4K870	9K760	3322 Hz	1K540	4K990	10K000
3238 Hz	1K580	5K110	10K200	3158 Hz	1K620	5K230	10K500
3101 Hz	1K650	5K360	10K700	3027 Hz	1K690	5K490	11K000
2940 Hz	1K740	5K620	11K300	2874 Hz	1K780	5K760	11K500
2811 Hz	1K820	5K900	11K800	2736 Hz	1K870	6K040	12K100
2679 Hz	1K910	6K190	12K400	2610 Hz	1K960	6K340	12K700
2558 Hz	2K000	6K490	13K000	2496 Hz	2K050	6K650	13K300
2436 Hz	2K100	6K810	13K700	2380 Hz	2K150	6K980	14K000
2315 Hz	2K210	7K150	14K300	2264 Hz	2K260	7K320	14K700
2205 Hz	2K320	7K500	15K000	2159 Hz	2K370	7K680	15K400
2105 Hz	2K430	7K870	15K800	2055 Hz	2K490	8K060	16K200
2006 Hz	2K550	8K250	16K500	1960 Hz	2K610	8K450	16K900
1916 Hz	2K670	8K660	17K400	1867 Hz	2K740	8K870	17K800
1827 Hz	2K800	9K090	18K200	1783 Hz	2K870	9K310	18K700
1740 Hz	2K940	9K530	19K100	1700 Hz	3K010	9K760	19K600
1656 Hz	3K090	10K000	20K000	1619 Hz	3K160	10K200	20K500
1579 Hz	3K240	10K500	21K000	1541 Hz	3K320	10K700	21K500
1505 Hz	3K400	11K000	22K100	1470 Hz	3K480	11K300	22K600
1433 Hz	3K570	11K500	23K200	1402 Hz	3K650	11K800	23K700
1368 Hz	3K740	12K100	24K300	1336 Hz	3K830	12K400	24K900
1305 Hz	3K920	12K700	25K500	1273 Hz	4K020	13K000	26K100

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LOW PASS				HIGH PASS			
FREQ.	Ra,Rb	R1	R2	FREQ.	Ra,Rb	R1	R2
1242 Hz	4K120	13K300	26K700	1212 Hz	4K220	13K700	27K400
1184 Hz	4K320	14K000	28K000	1158 Hz	4K420	14K300	28K700
1129 Hz	4K530	14K700	29K400	1103 Hz	4K640	15K000	30K100
1077 Hz	4K750	15K400	30K900	1051 Hz	4K870	15K800	31K600
1025 Hz	4K990	16K200	32K400	1001 Hz	5K110	16K500	33K200
978 Hz	5K230	16K900	34K000	955 Hz	5K360	17K400	34K800
932 Hz	5K490	17K800	35K700	910 Hz	5K620	18K200	36K500
888 Hz	5K760	18K700	37K400	867 Hz	5K900	19K100	38K300
847 Hz	6K040	19K600	39K200	827 Hz	6K190	20K000	40K200
807 Hz	6K340	20K500	41K200	788 Hz	6K490	21K000	42K200
769 Hz	6K650	21K500	43K200	751 Hz	6K810	22K100	44K200
733 Hz	6K980	22K600	45K300	716 Hz	7K150	23K200	46K400
699 Hz	7K320	23K700	47K500	682 Hz	7K500	24K300	48K700
666 Hz	7K680	24K900	49K900	650 Hz	7K870	25K500	51K100
635 Hz	8K060	26K100	52K300	620 Hz	8K250	26K700	53K600
605 Hz	8K450	27K400	54K900	591 Hz	8K660	28K000	56K200
577 Hz	8K870	28K700	57K600	563 Hz	9K090	29K400	59K000
550 Hz	9K310	30K100	60K400	537 Hz	9K530	30K900	61K900
524 Hz	9K760	31K600	63K400	512 Hz	10K000	32K400	64K900
502 Hz	10K200	33K200	66K500	487 Hz	10K500	34K000	68K100
478 Hz	10K700	34K800	69K800	465 Hz	11K000	35K700	71K500
453 Hz	11K300	36K500	73K200	445 Hz	11K500	37K400	75K000
434 Hz	11K800	38K300	76K800	423 Hz	12K100	39K200	78K700
413 Hz	12K400	40K200	80K600	403 Hz	12K700	41K200	82K500
394 Hz	13K000	42K200	84K500	385 Hz	13K300	43K200	86K600
373 Hz	13K700	44K200	88K700	365 Hz	14K000	45K300	90K900
358 Hz	14K300	46K400	93K100	348 Hz	14K700	47K500	95K300
341 Hz	15K000	48K700	97K600	332 Hz	15K400	49K900	100K00
324 Hz	15K800	51K100	102K00	316 Hz	16K200	52K300	105K00
310 Hz	16K500	53K600	107K00	303 Hz	16K900	54K900	110K00
294 Hz	17K400	56K200	113K00	287 Hz	17K800	57K600	115K00
281 Hz	18K200	59K000	118K00	274 Hz	18K700	60K400	121K00
268 Hz	19K100	61K900	124K00	261 Hz	19K600	63K400	127K00
256 Hz	20K000	64K900	130K00	250 Hz	20K500	66K500	133K00
244 Hz	21K000	68K100	137K00	238 Hz	21K500	69K800	140K00
232 Hz	22K100	71K500	143K00	226 Hz	22K600	73K200	147K00
221 Hz	23K200	75K000	150K00	216 Hz	23K700	76K800	154K00
211 Hz	24K300	78K700	158K00	205 Hz	24K900	80K600	162K00
201 Hz	25K500	82K500	165K00	196 Hz	26K100	84K500	169K00
192 Hz	26K700	86K600	174K00	187 Hz	27K400	88K700	178K00
183 Hz	28K000	90K900	182K00	178 Hz	28K700	93K100	187K00
174 Hz	29K400	95K300	191K00	170 Hz	30K100	97K600	196K00
166 Hz	30K900	100K00	200K00	162 Hz	31K600	102K00	205K00
158 Hz	32K400	105K00	210K00	154 Hz	33K200	107K00	215K00
150 Hz	34K000	110K00	221K00	147 Hz	34K800	113K00	226K00
143 Hz	35K700	115K00	232K00	140 Hz	36K500	118K00	237K00
137 Hz	37K400	121K00	243K00	134 Hz	38K300	124K00	249K00
131 Hz	39K200	127K00	255K00	127 Hz	40K200	130K00	261K00
124 Hz	41K200	133K00	267K00	121 Hz	42K200	137K00	274K00
118 Hz	43K200	140K00	280K00	116 Hz	44K200	143K00	287K00
113 Hz	45K300	147K00	294K00	110 Hz	46K400	150K00	301K00

2nd ORDER FILTER FREQUENCY/RESISTOR TABLES for BRYSTON 10B CROSSOVER
 Low pass: C1=44n, C2=22n | High Pass: Ca & Cb=6n8

LOW PASS				HIGH PASS			
FREQ.	Ra,Rb	R1	R2	FREQ.	Ra,Rb	R1	R2
108 Hz	47K500	154K00	309K00	105 Hz	48K700	158K00	316K00
103 Hz	49K900	162K00	324K00	100 Hz	51K100	165K00	332K00
98 Hz	52K300	169K00	340K00	95 Hz	53K600	174K00	348K00
93 Hz	54K900	178K00	357K00	91 Hz	56K200	182K00	365K00
89 Hz	57K600	187K00	374K00	87 Hz	59K000	191K00	383K00
85 Hz	60K400	196K00	392K00	83 Hz	61K900	200K00	402K00
81 Hz	63K400	205K00	412K00	79 Hz	64K900	210K00	422K00
77 Hz	66K500	215K00	432K00	75 Hz	68K100	221K00	442K00
73 Hz	69K800	226K00	453K00	72 Hz	71K500	232K00	464K00
70 Hz	73K200	237K00	475K00	68 Hz	75K000	243K00	487K00
67 Hz	76K800	249K00	499K00	65 Hz	78K700	255K00	511K00
63 Hz	80K600	261K00	523K00	62 Hz	82K500	267K00	536K00
61 Hz	84K500	274K00	549K00	59 Hz	86K600	280K00	562K00
58 Hz	88K700	287K00	576K00	56 Hz	90K900	294K00	590K00
55 Hz	93K100	301K00	604K00	54 Hz	95K300	309K00	619K00
52 Hz	97K600	316K00	634K00	51 Hz	100K00	324K00	649K00
50 Hz	102K00	332K00	665K00	49 Hz	105K00	340K00	681K00
48 Hz	107K00	348K00	698K00	47 Hz	110K00	357K00	715K00
45 Hz	113K00	365K00	732K00	44 Hz	115K00	374K00	750K00
43 Hz	118K00	383K00	768K00	42 Hz	121K00	392K00	787K00
41 Hz	124K00	402K00	806K00	40 Hz	127K00	412K00	825K00
39 Hz	130K00	422K00	845K00	38 Hz	133K00	432K00	866K00
37 Hz	137K00	442K00	887K00	37 Hz	140K00	453K00	909K00
36 Hz	143K00	464K00	931K00	35 Hz	147K00	475K00	953K00
34 Hz	150K00	487K00	976K00	33 Hz	154K00	499K00	1M0000
32 Hz	158K00	511K00	1M0200	32 Hz	162K00	523K00	1M0500
31 Hz	165K00	536K00	1M0700	30 Hz	169K00	549K00	1M1000
29 Hz	174K00	562K00	1M1300	29 Hz	178K00	576K00	1M1500
28 Hz	182K00	590K00	1M1800	27 Hz	187K00	604K00	1M2100
27 Hz	191K00	619K00	1M2400	26 Hz	196K00	634K00	1M2700
26 Hz	200K00	649K00	1M3000	25 Hz	205K00	665K00	1M3300
24 Hz	210K00	681K00	1M3700	24 Hz	215K00	698K00	1M4000
23 Hz	221K00	715K00	1M4300	23 Hz	226K00	732K00	1M4700
22 Hz	232K00	750K00	1M5000	22 Hz	237K00	768K00	1M5400
21 Hz	243K00	787K00	1M5800	21 Hz	249K00	806K00	1M6200
20 Hz	255K00	825K00	1M6500	20 Hz	261K00	845K00	1M6900
19 Hz	267K00	866K00	1M7400	19 Hz	274K00	887K00	1M7800
18 Hz	280K00	909K00	1M8200	18 Hz	287K00	931K00	1M8700
17 Hz	294K00	953K00	1M9100	17 Hz	301K00	976K00	1M9600

Formulas for 2nd order LOW pass filter are as follows:

$$\begin{aligned}
 PI &= 3.14159 & C &= 1 / (2 * PI * Fc * R) \\
 C1 &= 1.414 * C & C2 &= .707 * C \\
 R &= Ra = Rb = 1 / (2 * PI * Fc * C) \\
 Fc &= (1 / \text{SQR}(C1 * C2 * Ra * Rb)) / (2 * PI) = (1 / \text{SQR}(C^2 * R^2)) / (2 * PI)
 \end{aligned}$$

Formulas for 2nd order HIGH pass filter are as follows:

$$\begin{aligned}
 PI &= 3.14159 & C &= Ca = Cb = 1 / (2 * PI * Fc * R) \\
 R &= 1 / (2 * PI * Fc * C) & R1 &= .707 * R \\
 R2 &= 1.414 * R \\
 Fc &= (1 / \text{SQR}(Ca * Cb * R1 * R2)) / (2 * PI) = (1 / \text{SQR}(C^2 * R^2)) / (2 * PI)
 \end{aligned}$$